

297.8
M31

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

RECEIVED
JUL 13 1923
Department of Agriculture

Baltimore, Md.
JULY 12, 1923

Reasons Why All Meetings of Federal Reserve Board Should Be Open to the Public.

Some days ago the Interstate Commerce Commission made two rulings of tremendous significance. One was the refusal to permit the building of a short branch railroad in order to open a new coal mine, on the alleged ground that we already have too many coal mines. The other was a decision that railroads must furnish for all the mines on their line a pro-rata allotment of cars instead of following the system of the past in furnishing an ample supply of cars to the mines upon which the roads depend for coal. These are vital questions.

The Interstate Commerce Commission would not have dared to reach these decisions without giving to the public a statement in regard to the reason why these conclusions were reached and the names of those who voted for and against these measures. On the other hand, the Federal Reserve Board, holding in its power the life or death of the business interests of the country to a far greater extent than does the Interstate Commerce Commission, holds its meetings in secret, and gives the public no information whatever in regard to why its decisions were reached or who voted for or against its actions.

Two measures of tremendous importance were announced by the Federal Reserve Board last week. They make certain that the entire financial system of this country will be thrown into a hot political campaign. These acts apparently were adopted for the express purpose of circumventing the decision of the Supreme Court—a very dangerous proceeding. But secrecy still holds sway in the meetings of the Federal Reserve Board and no one outside of that Board knows whether these acts were passed by unanimous vote or whether there was a minority vote against such dangerously destructive measures.

One of the first acts of Congress should be an amendment to the Federal Reserve Act compelling that Board to throw open its meetings to the public and permit the newspapers to have full information in regard to every question at issue. At the momentous Federal Reserve meeting of May 18, 1920, which confirmed and commended the drastic deflation campaign then under way, Governor Harding urged that those present should not divulge anything that had taken place that day except to their immediate associates and fellow directors and that the acts of the day should be regarded as strictly confidential. We do not, said he, give information on discount questions to the newspapers. When newspaper men ask us about the matter we turn the question off with a discussion of the weather. That secrecy, damning in its effect upon the business interests of the country, always gives to the insiders full knowledge of what is going to happen in stock markets or in business long before the public knows anything about it. Such secrecy opens up limitless opportunities for money making, and he would be a rash man who presumed to say that every member of organizations of this kind, who is willing to sit in a secret session, is so angelic in character that he will not in any way utilize the information thus secured for his own personal profit. Doubtless there are many men connected with these organizations who would consider themselves forever disgraced if they used this secret information to shape their own affairs for the making of money or for preventing losses. And yet, so long as human nature is as it is, it is not inconceivable that there are some men who having this kind of secret information use it to their personal profit. It is vitally important, therefore, that all the meetings of the Federal Reserve Board should be held in the open and that the public should have full knowledge as to who voted for or against every measure adopted, with the reasons therefor.

The Interstate Commerce Commission and the United States Supreme Court would not dare to hold secret sessions and decide in secret important measures such as is done by the Federal Reserve Board. Is that Board greater than the United States Supreme Court? Is it above all laws and criticism? Is it a law unto itself? The country must give an answer to these questions.

A number of bankers and others in this issue discuss some recent decisions of the Federal Reserve Board in a way to arouse our country to dangers ahead of us unless that Board changes its policies.

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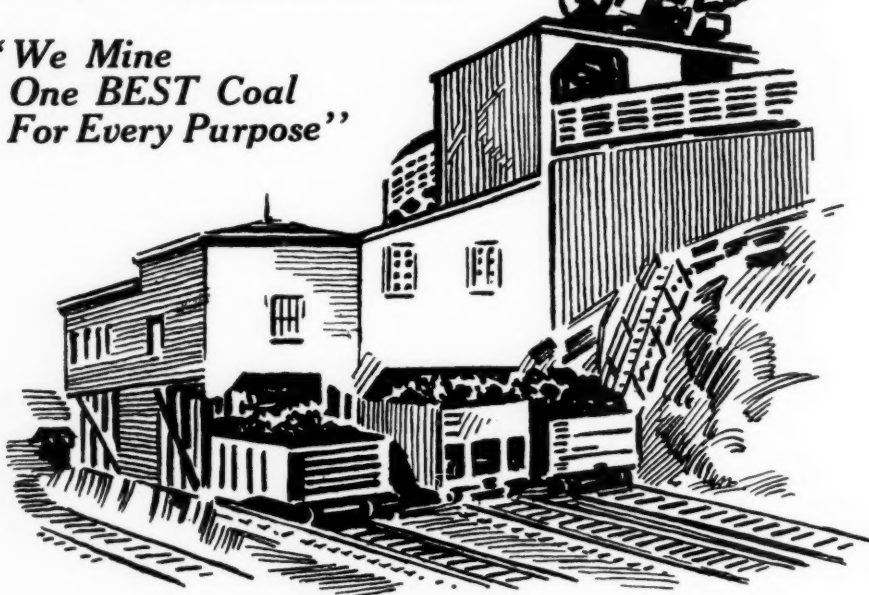
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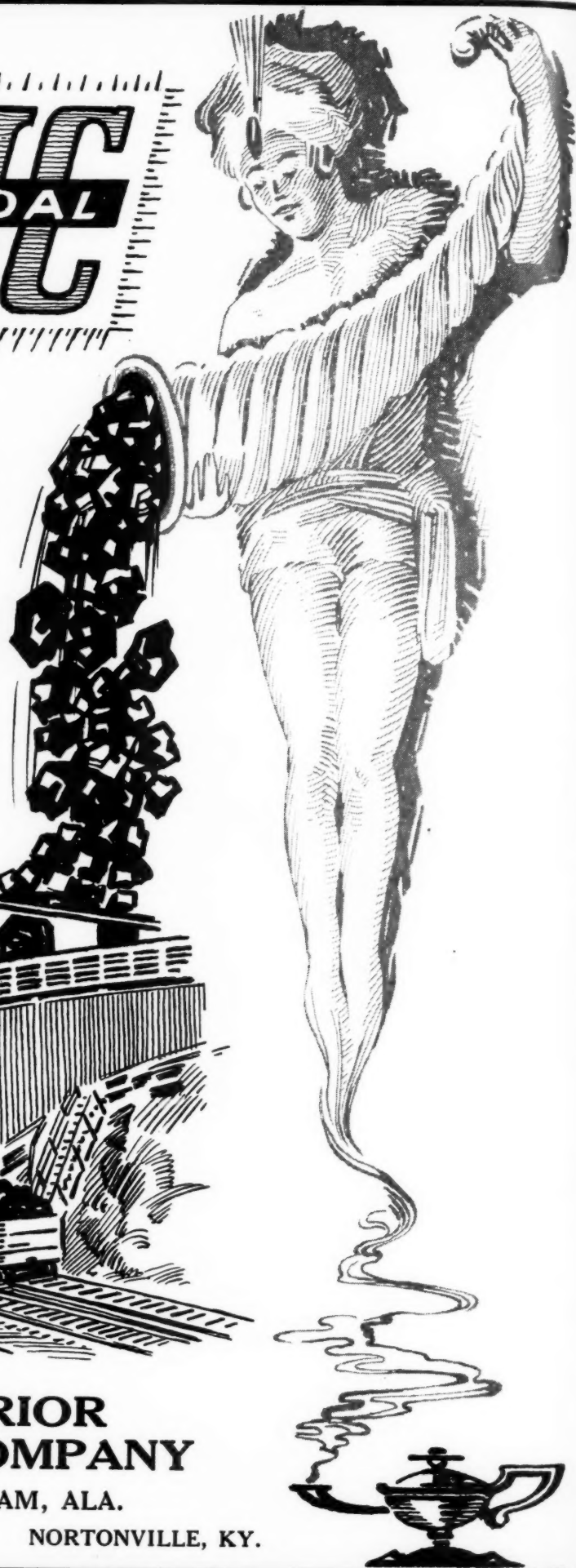


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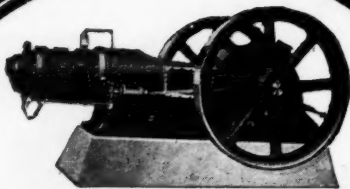
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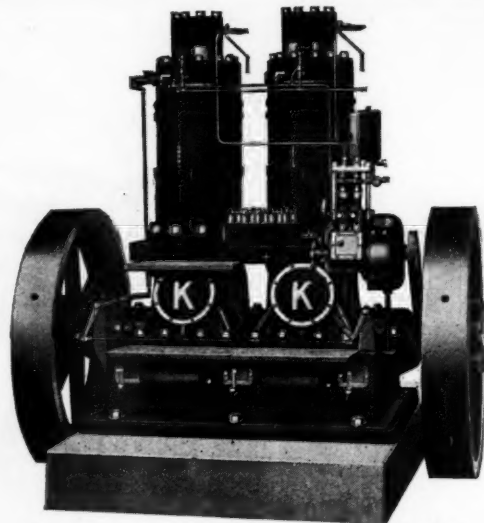
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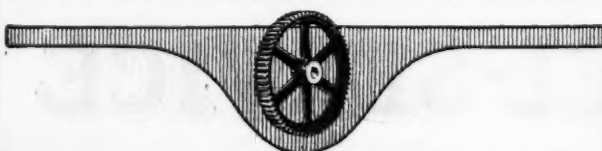
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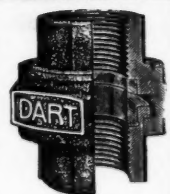


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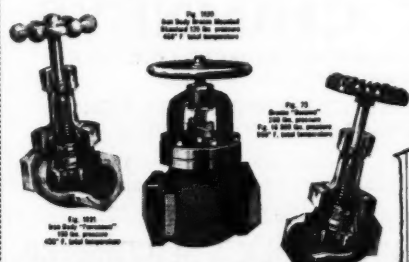


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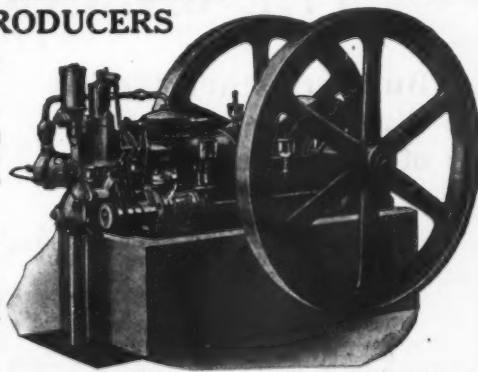
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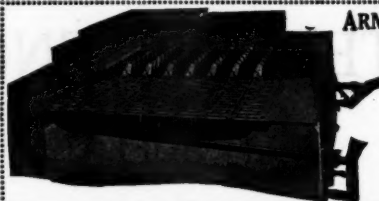
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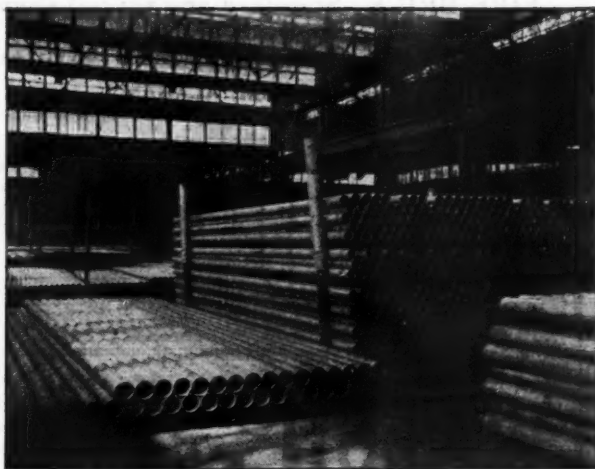
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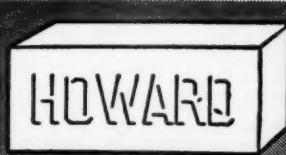
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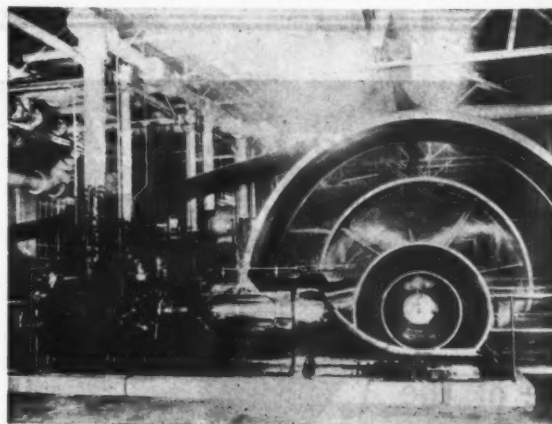
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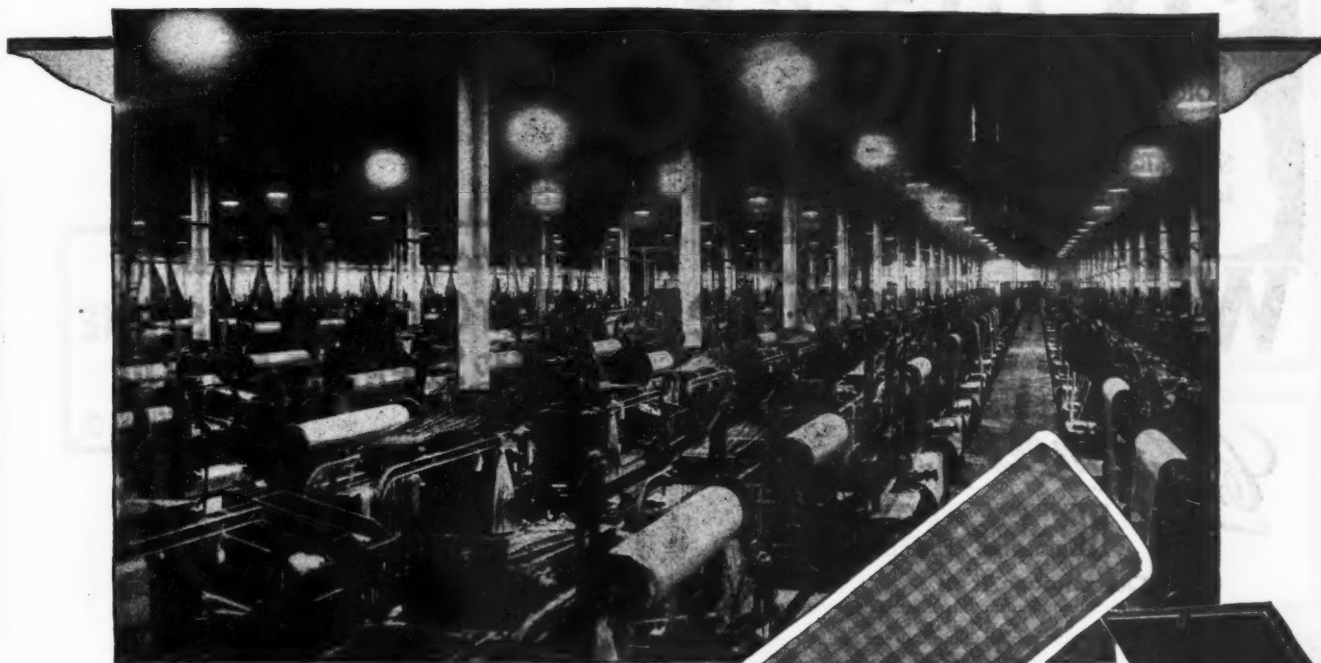
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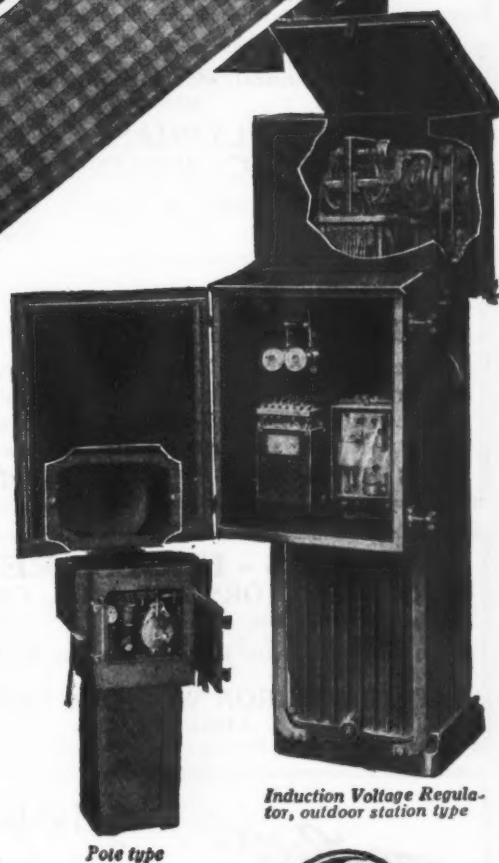
Waste is one of the worst "bug-bears" of the manufacturer.

Oftentimes decreased output is a result of improper lighting, and too frequently the trouble with illumination lies in the voltage. Only a 10% drop in voltage causes a 30%, and more, reduction in candle-power. So the latest types of fixtures and lamps will avail but little unless normal lamp voltage is maintained.

To those mills buying unregulated electric power from a Central Station, G-E Induction Regulators are of great value in holding constant voltage on lighting circuits to insure the best working conditions and consequent maximum output.

Central Stations find Induction Regulators a necessity for lighting feeders. Put them on *your* lighting circuits also.

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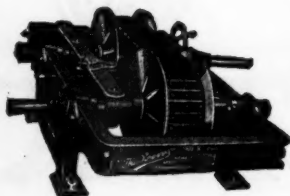
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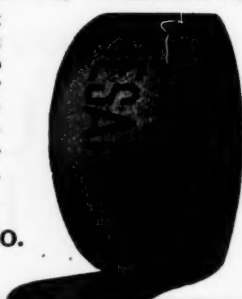
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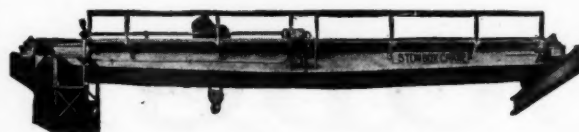
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No. 354

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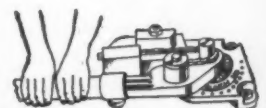
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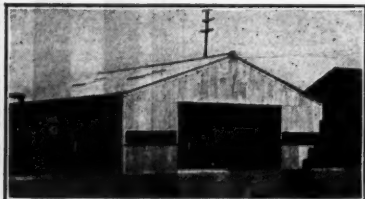


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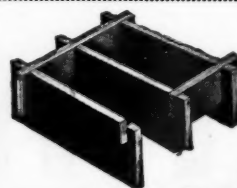
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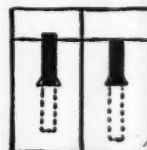
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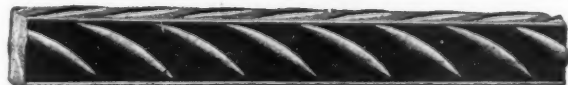
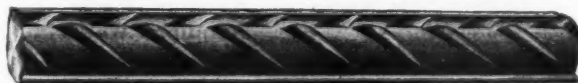
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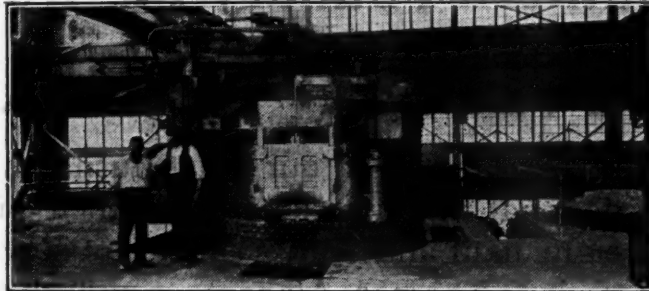
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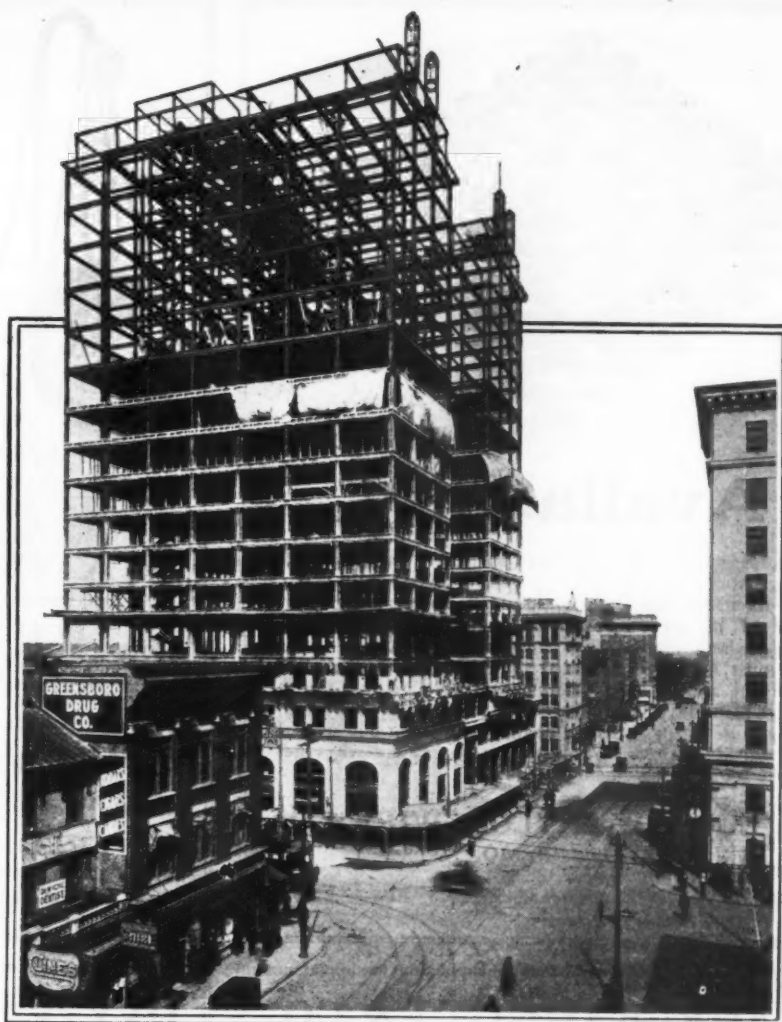
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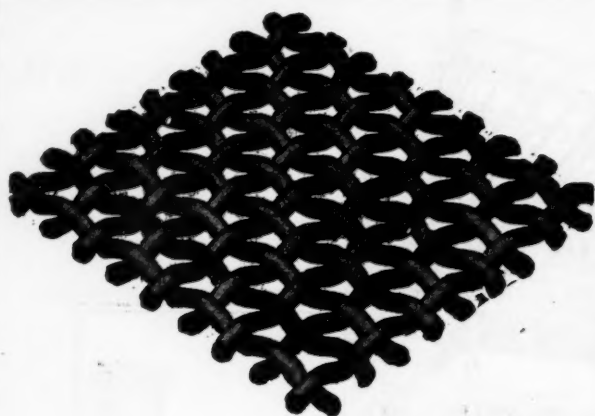
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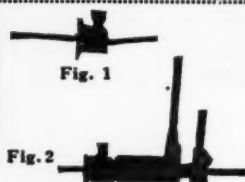


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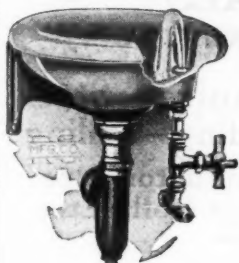
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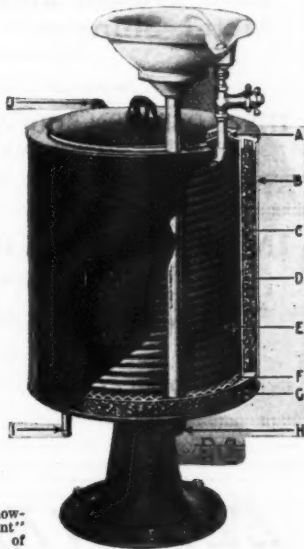
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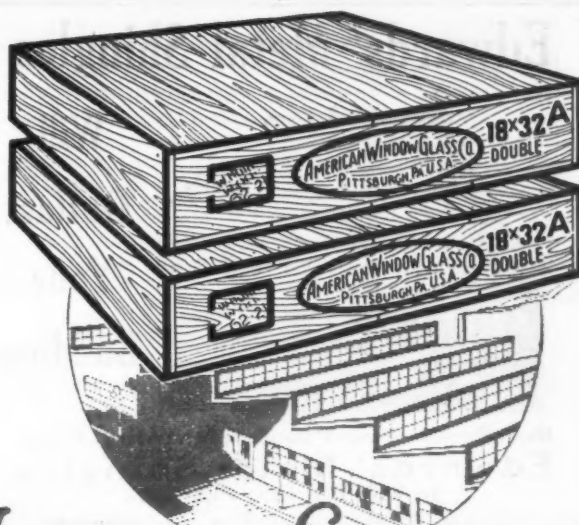
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Edwards' Metal Shingles are attractive, durable, water, wind and fireproof. There's a design to suit every taste. They are easily laid; the only tools needed being hammer and nails. And the patent interlocking device provides automatically for expansion and contraction.

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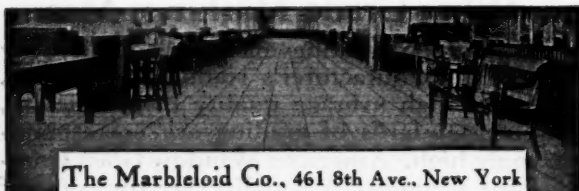


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We will furnish the name on application—

New York, April 12, 1923.

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Gentlemen:—

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Trusting this information will serve your purpose.

Yours truly,

(Name furnished on request.)

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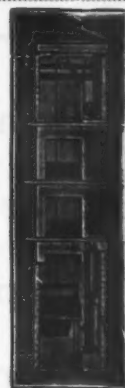
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BUILDING PERMITS ISSUED IN CITIES OVER 25,000 POPULATION.

1922			1923		
	Buildings	Cost		Buildings	Cost
January	30,392	\$138,799,280	January	41,780	\$206,329,805
February	32,150	139,919,847	February	40,820	228,222,590
March	62,444	262,283,354	March	70,391	397,404,373
April	64,449	212,735,607	April	81,218	330,581,862
First 4 mo.	189,435	\$753,738,088		234,209	\$1,162,538,630

NOTE: April, 1923, largest construction month on record, exceeding April of last year by more than 50 To date, 1923 is well over 50% ahead of 1922.

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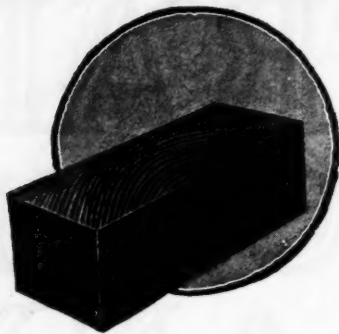
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Creosoted Southern Yellow Pine is by far the cheapest material of a permanent nature used for construction of wharves and docks.

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These three qualities—density, durability, dependability—are the inherent qualities of Long Leaf Southern Pine which grows in that belt in Louisiana where the holdings of the Exchange Sawmills Sales Company are located. No wood, commercially available, can take the place of Long Leaf Southern Pine in construction where strength and durability are important.

Essco mills give particular attention to Long Leaf Southern Pine items for all industrial purposes. Essco lumber and timbers are made from especially selected trees and subjected to special care at our mills.

For Factory Builders—Close grained virgin Long Leaf timbers and heavy lumber for slow combustion purposes.

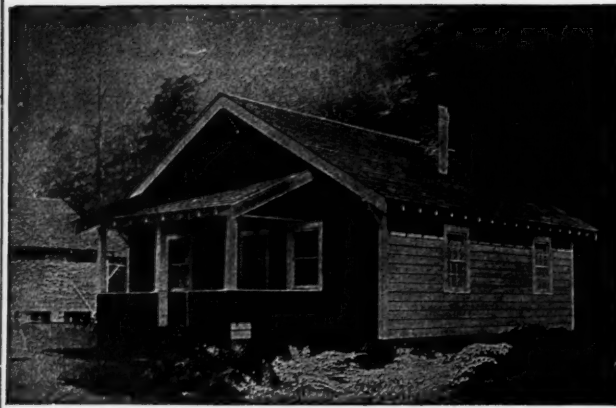
For Railroads—Bridge and Trestle timbers, Flooring, Roofing, Siding, Lining, Sills, Framing, Sawn Ties, Grain Doors, Bridge stringers a specialty.

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Cabot's Creosote Stains

The Ideal Colorings for Housing Jobs

50% Cheaper than Paint
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Preserve the Woodwork

Cabot's Creosote Stains are used on all kinds of woodwork. They are made of Creosote, "the best wood preservative known," combined with the strongest and most lasting colors ground in linseed oil. They cost less than half as much as paint, and can be applied at less than half the labor cost. Lack of skilled labor will not hold up work, because your own men can apply Cabot's Stains perfectly well.

Mr. C. A. Cabell, vice-president of the Carbon Fuel Co., after using thousands of gallons of Cabot's Stains on their housing work, writes: "It is far superior to paint, in our opinion."

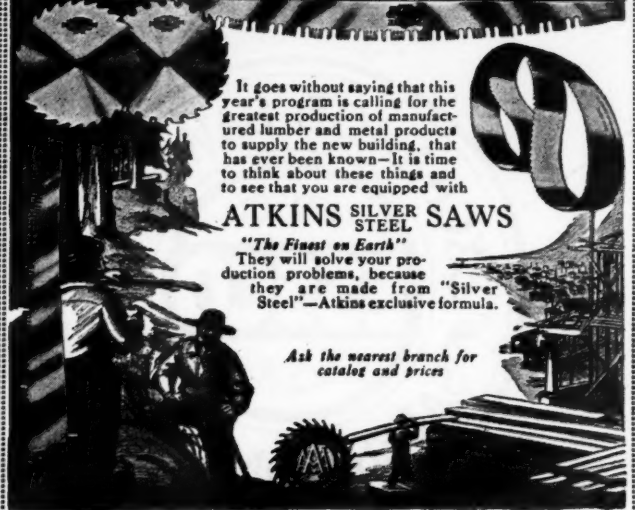
Other large Housing Developments where Cabot's Stains have been used are:

Winnsboro Mills.
Buckeye Coal Co.
Goodyear Tire & Rubber Co.
Bethlehem Loading Co.
Stonega Coal & Coke Co., etc., etc.

Samples on wood showing colors, and full information, sent on request.

SAMUEL CABOT, Incorporated
Manufacturing Chemists
Boston, Mass.

ATKINS SILVER STEEL SAWS



E. C. ATKINS & COMPANY, Inc.

"The Silver Steel Saw People" Established 1857
Home Office and Factory, INDIANAPOLIS, INDIANA
Canadian Factory, Hamilton, Ont. Machine Knife Factory, Lancaster, N. Y.
Branches carrying complete stocks in the following cities:
Atlanta, Chicago, Memphis, Minneapolis, New Orleans, New York City, Portland, Ore., San Francisco, Seattle, Vancouver, B. C., Sydney, N. S. W., Paris, France

CLAY WORKING MACHINERY

For Brick, Tile and Block, from smallest to largest capacity. Full line equipment. Write for catalogue
J. C. STEELE & SONS
STATESVILLE, N. C.
U. S. A.



BRICK MACHINERY

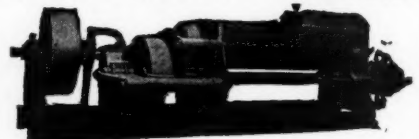
and
BRICK YARD SUPPLIES
THE FERNHOLTZ BRICK MACHINERY CO.

Boyle and Vandeventer Avenues

ST. LOUIS, MO.

BRICK, TILE AND FIRE-PROOFING MACHINERY

Complete line of Clayworking Machines for the manufacture of building, paving and fire brick, drain tile, chemical tile, hollow building blocks, etc.



E. M. FREESE & COMPANY

GALION, OHIO

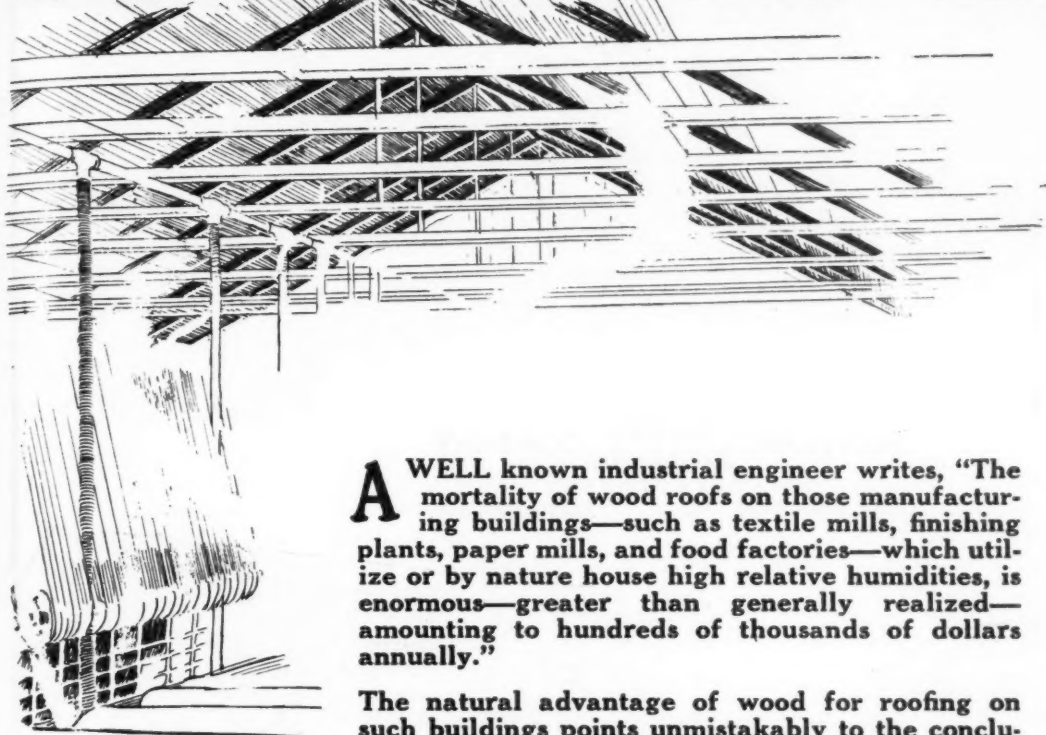
DIAGRAPH STENCIL- CUTTING MACHINE

To prove that the Diagraph Stencil-Cutting Machine will avoid delay and much of the loss and damage resulting from improper marking of shipments we will gladly send one to you on trial—we pay the freight—buy it if you like it—otherwise return it at our expense.

J. R. REGNAS & CO.

Diagraph Stencil Machine Branch
12 TIFT STREET - ATLANTA, GA.

Creosoted Timber for Mill Roofs



A WELL known industrial engineer writes, "The mortality of wood roofs on those manufacturing buildings—such as textile mills, finishing plants, paper mills, and food factories—which utilize or by nature house high relative humidities, is enormous—greater than generally realized—amounting to hundreds of thousands of dollars annually."

The natural advantage of wood for roofing on such buildings points unmistakably to the conclusion that the remedy for this situation lies in the preservative treatment of roof members. Many progressive mill owners and architects are specifying such treatment today.

Be sure your roof is creosoted by the pressure process to insure the maximum service and that the work is handled by a company having an unquestioned reputation for quality products. We welcome investigation of our record.

Our engineers will gladly discuss your roofing problems without any obligation on your part.

AMERICAN CREOSOTING COMPANY, INC.

Louisville, Kentucky

Colonial Creosoting Co., Inc., Bogalusa, La.

Georgia Creosoting Co., Inc., Brunswick, Ga.

Sales Offices: 350 Madison Avenue, New York City.
Brunswick, Georgia.

401 W. Main St., Louisville, Ky.
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AM CRE CO
Lowry Process
Creosoted Wood

GARAGE

*In fact any kind
of a building*

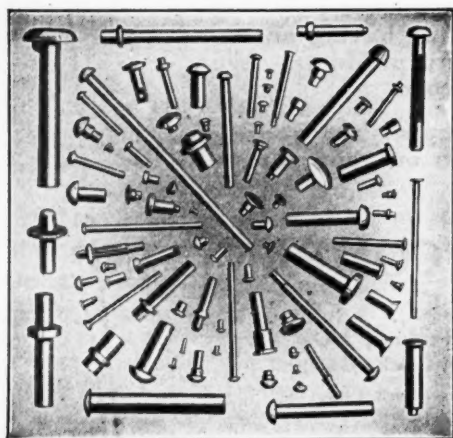
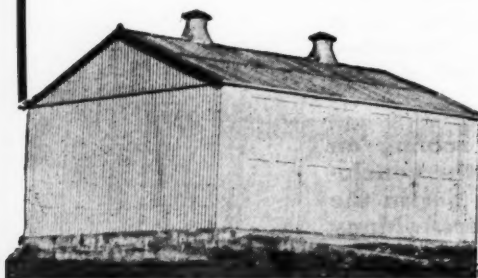
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can be erected by Maryland Metal Building Company of rust resisting "Lyonore" metal that will last a lifetime.

Storehouses, garages, shower bath houses, workshops and industrial plants are a few of the types erected, giving perfect ventilating service; free from vibration; are light, roomy, airy, and above all—satisfactory.

*We will be glad to estimate
on your requirements.*

MARYLAND METAL BUILDING COMPANY
MANUFACTURERS
RACE & McCOMAS STS. BALTIMORE, MD.

**MACHINE SCREWS**

Hexagon and Square Iron and Brass Nuts.
Interchangeable Bolts and Nuts (Promco
Brand) Special Screws and quality Rivets to
order.

Submit samples and advise as to quantity.
Catalog for the asking.

THE PROGRESSIVE MANUFACTURING CO.
TORRINGTON, CONN.



1,500,000 feet dry stock now ready
**POPLAR, WHITE AND RED OAK
RED AND TUPELO GUM
MAGNOLIA**

Glad to have inquiries from responsible buyers.
EASTMAN-GARDINER HARDWOOD CO.
LAUREL, MISS.

HIGH GRADE SIBLEY FACE BRICK

RED, BUFF AND FLASH

Birmingham Clay Products Co.

901-4 Woodward Bldg.

Birmingham, Ala.

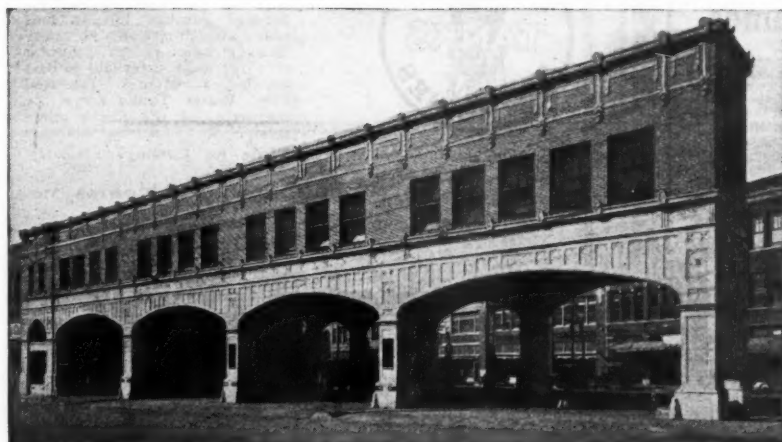
**The Beautiful Blended Tones of
KINGSPORT ARTISTIC BRICK**

Are obtained solely by scientifically burning the wonderful clays in our deposits. No chemicals or foreign ingredients are used whatever.

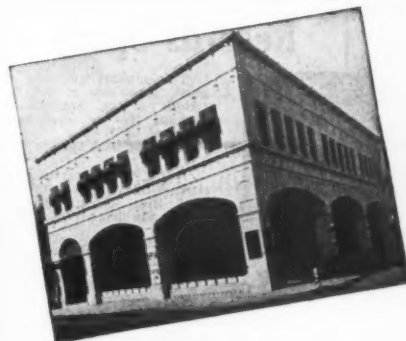
The wide range of color tones blend harmoniously and give the finished structure a distinctive individuality that enhances the value and salability of the building.

*Write for samples and prices
before selecting your brick.*

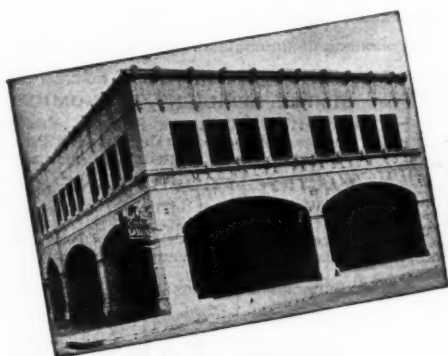
KINGSPORT BRICK CORPORATION
General Offices - - Kingsport, Tenn.



Dallas
Service Station and Office Building Magnolia Petroleum Co.
Lang & Wittchell, Architects
Childs-Lassell Const. Co., Builders



San Antonio
Adams & Adams, Architects
Coleman & Jenkins, Builders



Amarillo
Clarkson & Gaines, Architects
C. S. Lambie Co., Builders



Fort Worth
Clarkson & Gaines, Architects
J. C. Buchanan, Builders



Houston
Alfred C. Finn, Architect
Albert Baring, Builder

Oil-proof and Dirt-proof!

All the dirt, oil and grease that accumulates on the walls of these buildings can be washed off with soap and water, and the original clean, bright surface restored.

Not only clean and attractive today but will remain so for the years to come!

That is why the Magnolia Petroleum Co. chose Atlanta Terra Cotta of a light grey unglazed color for their five large service stations in these five Texas cities.

Atlanta Terra Cotta Company

Citizens & Southern Bank Building
Atlanta, Georgia

Southwestern Office
A. P. Clark, District Manager
Praetorian Building
Dallas, Texas

Records Speak Volumes



The unusual qualities of Caldwell Cypress Tanks are proven by their enviable records in all sections of the country. Perhaps this is largely due to the fact that, of all woods, cypress is the one which lasts best outside its native climate.

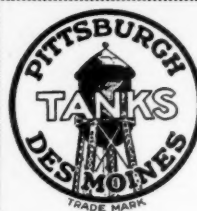
Thirty years experience in building tanks enables us to couple this remarkable tank wood with workmanship and design that ensure the maximum of tank satisfaction.

Send for Catalog

W. E. Caldwell Co.
Incorporated

1900 Brook St., Louisville, Kentucky

Caldwell
TANKS
AND
TOWERS



Elevated Steel Water Tanks for the South's Industries

Strong, durable, low in first cost, with practically no maintenance cost except painting at three year intervals—Pittsburgh-Des Moines Elevated Steel Water Tanks serve the industries of the South effectively.

Write for Catalogue No. 75.

Pittsburgh-Des Moines Steel Co.

875 Curry Bldg. Pittsburgh, Pa.
Richmond Dallas Des Moines

PITTSBURGH
DES MOINES

STEEL TANKS for All Purposes STEEL STACKS

General Fabricated Plate Metal Work

2—11,000 Gal. Oil Storage Tanks.
Ready for Shipment. Subject to
Prior Sale.

Send us your inquiries

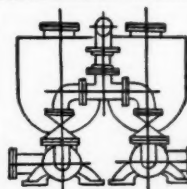
DOWNINGTOWN IRON WORKS

Office and Works: Downingtown, Pa.

Riveted Steel Plate Tanks

3/16" to 1/2" thickness
Pneumatic Water Supply,
Hot Water & Air Receivers.

HAMBURG BOILER WORKS, Inc.
HAMBURG, BERKS COUNTY, PENNA.



AUTOMATIC SEWAGE EJECTORS

SIMPLE, EFFICIENT, ECONOMICAL
Also Miller Flushtank Siphons, Sewage
Disposal Apparatus, Centrifugal Pump
Outfits, Sewer Jointing Compounds.

PACIFIC FLUSH-TANK CO.

Write nearest office for catalog
interested in
Chicago New York



Chattanooga Boiler & Tank Co.

418 10th Street
CHATTANOOGA, TENN.

If made of Steel, we make it
Tanks anywhere for any service.

**Steel Riveted Pipe
Standpipes
Tanks on Towers**

We make dye tanks and also manu-
facture special work for
chemical plants

ESTABLISHED 1892
AIR-TIGHT STEEL TANK CO.
PITTSBURGH, PA.

TANKS

STEEL TANKS—For pressure or plain storage—riveted,
welded, or genuine copper-brazed construction—the tightest,
strongest, safest tank it is possible to construct by any
known process.

TOWERS & TANKS

WALSH & WEIDNER
Towers and Tanks are cor-
rect in design. Their sim-
plicity contributes to their
low cost of maintenance.

Our shop equipment in-
cludes the best for produc-
tion, and our facilities for
quick shipment are unex-
celled.

Our estimate on your next
requirements will save you
money.

The Walsh & Weidner Boiler Co.
CHATTANOOGA, TENN.



STEEL TANKS and TOWERS

For Water Supply
and Fire Protection

ANY SIZE ERECTED ANYWHERE

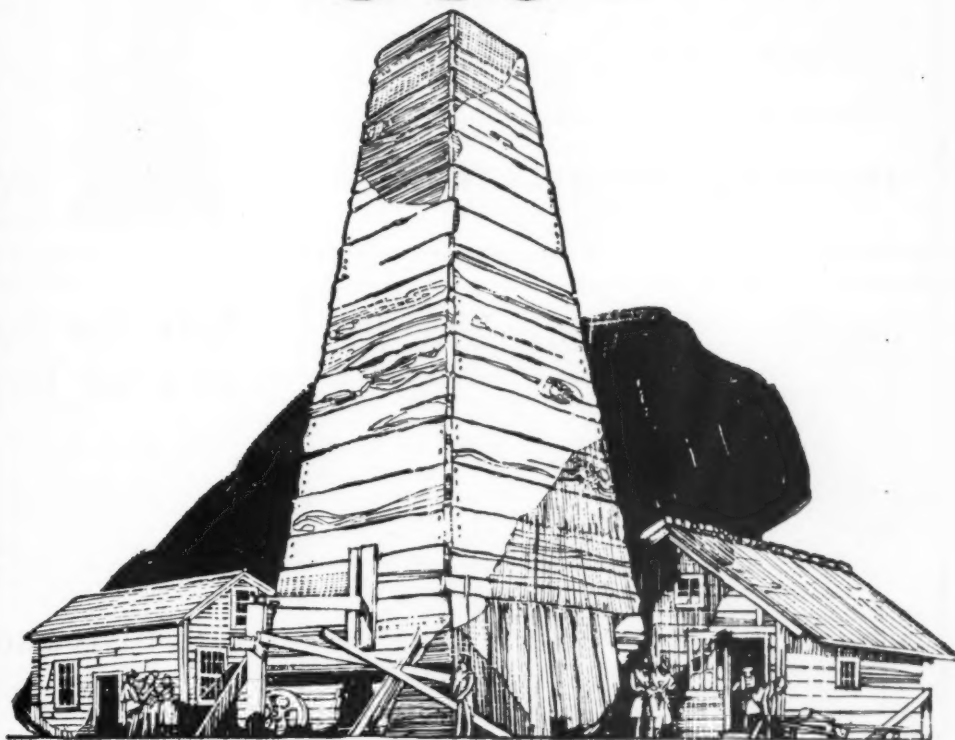
Manufacturers of
BOILERS AND ENGINES

Write for prices

R. D. COLE MFG. CO.
NEWNAN GEORGIA

Youngstown
TANKS

"Oil"



WHEN Col. E. L. Drake drilled the first oil well near Titusville, Pa., in 1859, the storage facilities were clumsily fashioned from wood. These wooden tanks were as crude as the oil stored in them. That was sixty four years ago.

Today the products of the oil fields are stored in modern field tanks of steel. Our 55,000 and 80,000 barrel "Youngstown Tanks" are a part of equipment wherever there's large production. Recently we finished a complete 15,000 barrel refinery and immense storage facilities for a customer in the southwest. This order alone represented over a million dollars and required 200 carloads of steel. More than 400 men were engaged for months in the erection.

The Youngstown Boiler & Tank Co.

President

You will enjoy reading Bulletin 500, if you are interested in steel storage. Sent free to executives on request.

No. 8 of a series of advertisements.

The **YOUNGSTOWN BOILER & TANK Company**
Youngstown Ohio - U.S.A.

STEEL PLATE CONSTRUCTION**DESIGNERS AND BUILDERS**

Blast Furnaces, Smoke Stacks, Ladles for Open Hearth and Blast Furnaces, Riveted Pipe, Oil Refineries, Sugar Refineries, Steel Barges, Steel Hulls and Steel Wharf Boats

Place Your Steel Plate Construction Problems Before Us

TREADWELL CONSTRUCTION CO.
MIDLAND, PA.

**CYPRESS or CEDAR**

Tanks up to 100,000 gallons.
Estimates with or without Steel Towers or Erection.

Tanks for Dye Houses
Chemical and Fertilizer Plants and for all other Manufacturing requirements. Ask for Catalog D.

G. WOOLFORD
WOOD TANK MFG. CO.
Lincoln Bldg. PHILADELPHIA, PA.

**STILL IN SERVICE**

Is the genuine Louisiana Red Cypress water tank on the John Shillito Co. Bldg., Cincinnati—capacity of tank, 15,000 gallons—built 30 years ago.

Built to comply with requirements of National Board of Fire Underwriters and Associated Factory Mutual Fire Insurance Companies.

Tanks for Every Purpose made of Genuine Red Gulf Cypress, Douglas Fir, Yellow Poplar, etc.

HAUSER-STANDER TANK CO.
CINCINNATI, OHIO

Tanks That Experts Buy Are A Safe Buy For You

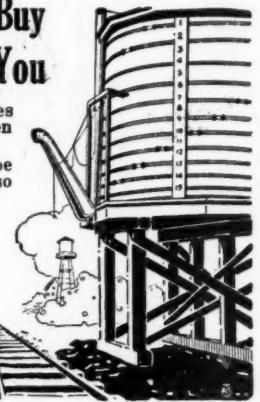
Railroad men know what constitutes a good tank, so do shrewd mill men and manufacturers.

Many Davis Cypress tanks may be seen along railway lines. They also are widely used by manufacturers and private concerns.

Made of Cypress the wood eternal, Davis tanks are unusually durable and lasting. Write for estimates and illustrated catalog.

G. M. DAVIS & SON

Established 1888
PALATKA, FLORIDA

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**CAST IRON
PIPE**

**"USICAST"
CASTINGS**

United States Cast Iron Pipe & Fdy. Co.
General Offices: Burlington, N. J.

SLUICE GATES

**Shear, Flap and Butterfly Valves
FLEXIBLE JOINTS**

COLDWELL-WILCOX COMPANY

2 River Street

NEWBURGH, N. Y.

GLAMORGAN PIPE & FOUNDRY CO.
LYNCHBURG, VA.

GENERAL FOUNDERS AND MACHINISTS

Manufacturers of

CAST IRON PIPE

For Water and Gas, Flange Pipe and Fittings

SALT GLAZED SEWER AND CULVERT PIPE

Wall Coping, Drain Tile, Flue Lining, Chimney Tops, Hollow Tile, Fire Proofing, Vitrified Brick, Fire Brick

BANNON'S PATENT LIDDED PIPE FOR STEAM CONDUITS

BANNON PIPE CO.

LOUISVILLE, KY.

**RIVETED STEEL PIPE**

Smoke Stacks
Stand Pipes
Caissens

Storage Bins
Oil Storage Tanks
Galvanizing Kettles

and all classes of Steel Plate Construction for the Iron and Steel Industry.

THE PETROLEUM IRON WORKS CO.

SHARON, PENNSYLVANIA

New York
Tulsa

St. Louis
Casper, Wyo

Houston

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San Francisco

**CAST IRON PIPE
-AND FITTINGS-**

American Cast Iron Pipe Company
Birmingham, Ala

SALES OFFICES IN PRINCIPAL CITIES

UNIVERSAL CAST IRON PIPE

THE CENTRAL FOUNDRY COMPANY

41 East 42d St., NEW YORK

Chicago

Birmingham

Dallas

San Francisco

no packing

no calking

no bell holes

National Cast Iron Pipe Company

BIRMINGHAM, ALA.

Manufacturers of

**CAST-IRON Water and Gas
Pipe and Fittings, Flanged
Pipe, Flanged Fittings, and
General Castings**

Foundries and Home Office:
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SALES OFFICES:

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903 Commerce Building, Kansas City, Mo.
916 Kirby Building, Dallas, Texas.
Wm. P. Horn Co., Rialto Bldg., San Francisco, Calif.
Pacific Pipe & Supply Co., Los Angeles, Calif.

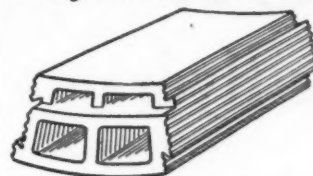
Stocks Carried At:

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1871

1923

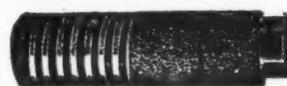
Clay Products of Superior Quality



For the last HALF CENTURY we have been the largest Manufacturers in the South of Vitrified Sewer Pipe, Vitrified Highway Culvert Pipe, Segment Blocks, Hollow Tile, Septic Tanks, Flue Lining, Wall Coping, Tile Silos, Drain Tile, Chimney Tops.

Ask for free Booklets and prices.

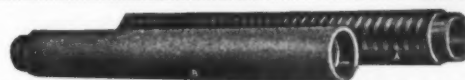
Chattanooga Sewer Pipe Works
Chattanooga, Tenn.



Save 25% to 50% by using
Wyckoff Wood Pipe
instead of Cast Iron Pipe

Cheaper. Lasts as long. Delivers more water. Get catalogue
A. WYCKOFF & SON CO., ELMIRA, N. Y.

ATLANTA, GA., H. H. White, 1503 4th Nat. Bank Bldg.
Branches: SCRANTON, PA., Valley Supply Co., Coal Exch. Bldg.



STANDARD WOOD PIPE

MORE DURABLE AND ECONOMICAL

Will furnish pipe to suit conditions Write for catalogue for full information
STANDARD WOOD PIPE COMPANY - WILLIAMSPORT, PA.

Hammond-Byrd Iron Co.

CAST IRON WATER PIPE AND FITTINGS
1707-1718 American Trust Bldg., Birmingham, Ala.
1055 Peoples Gas Bldg., Chicago, Ill.

342 Madison Ave., New York City

McWANE PRECALKED JOINT PIPE CAST IRON

Sizes 1½-in. up. No bell holes.
Saves 20% Cost Line. Cat. M.
McWANE CAST IRON PIPE CO. Birmingham, Ala.

FIRE CLAY SEWER PIPE, FLUE LINERS and WALL COPING

Write for Catalogue and Discounts

Owensboro Sewer Pipe Co. Owensboro, Ky.

OUR SPECIALTY

FAMOUS EMPIRE GAS COAL

Analysis Empire Coal	
Moisture	1.45 %
Volatile Matter	36.57 %
Fixed Carbon	59.63 %
Ash	2.35 %
	100.00 %
Sulphur	0.93 %
B. T. U.	14,986 %

THE
EMPIRE COAL COMPANY

711-717 American Trust Building
BIRMINGHAM, ALA.

RoTURBo CENTRIFUGAL PUMPS

Manistee Iron Works Co., Manistee, Michigan

PLATT IRON WORKS - DAYTON, OHIO.

Smith-Vaile **PLATT** Pumps



Steam and Power
Pumping Machinery

EMERSON STEAM PUMPS

EMERSON FOOT VALVES AND STRAINERS

For Contractors, Mines, Quarries, Cofferdams, and all
Rough and Ready Service. *Immediate Deliveries*

The Emerson Pump and Valve Co., Inc.
ALEXANDRIA, VA.

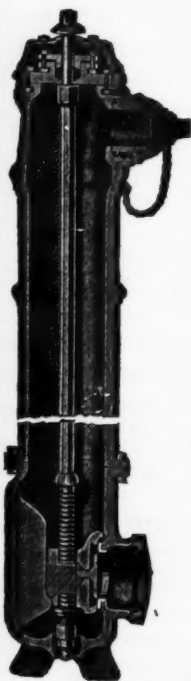
Cut cost in upkeep

BY USING

MCGOWAN DUPLEX STEAM AND POWER DRIVEN PUMPS

THE JOHN H. MCGOWAN CO.
CINCINNATI, OHIO, U. S. A.

LUDLOW **Fire Hydrants**



Ludlow Slide Gate Fire Hydrants are cheapest in the long run. The records they have made in our large cities where many others are in use prove that there is no other hydrant on the market with a greater efficiency and a smaller upkeep cost.

Ludlow Hydrants cannot clog. All working parts are protected from injury by gritty or cutting substances passing through the hydrant. All parts can be removed without digging up the hydrant. Gate-locking device prevents street from being flooded should the standpipe be broken.

Southern Representative:
WM. F. WILCOX
 1206 Fourth National Bank Bldg., Atlanta, Ga.

The Ludlow Valve Mfg. Co.
TROY, N. Y.

Branch Offices:
 Boston New York Chicago Philadelphia Pittsburgh Kansas City

Heavy! Heavy! How is your overhead?
Fine! Fine! I cleaned out my line
 With

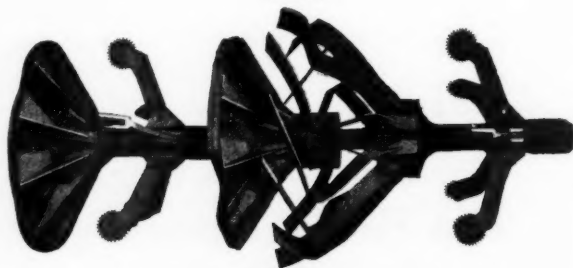


FIGURE 5036

TRANSIT LINE SCRAPERS

—ANY SIZE—

—REPAIRS SUPPLIED—

Description on Request

NATIONAL TRANSIT
PUMP AND MACHINE COMPANY
OIL CITY, PENNA.

District Offices: New York, Philadelphia, Pittsburgh, Cleveland,
 Kansas City, Houston and Denver

COLUMBIAN IRON WORKS **CHATTANOOGA, TENN.**

MANUFACTURERS OF

Fire Hydrants, Valves, Valve
Boxes, Sluice Gates, Meter
Boxes, Water-Works
Supplies

ALSO MUNICIPAL AND BUILDING
CASTINGS

Estimates Promptly Furnished

New Orleans Representative:
J. S. BARELLI
 612 Godchaux Bldg.



THE BOURBON COPPER & BRASS WORKS CO.

Manufacturers of

FIRE HYDRANTS and
STOP VALVES

Water Works and Fire Department
 Supplies and Extension Valve Boxes
 Long Distance Phone, Canal 3297
 618 and 620 E. Front Street
CINCINNATI, OHIO



Vogt

PRODUCTS

REFRIGERATING AND ICE
 MAKING MACHINERY—
 WATER TUBE & HORIZONTAL
 RETURN TUBULAR BOILERS
 DROP FORGED STEEL VALVES
 & FITTINGS OIL REFINERY
 EQUIPMENT—Ask for Bulletin

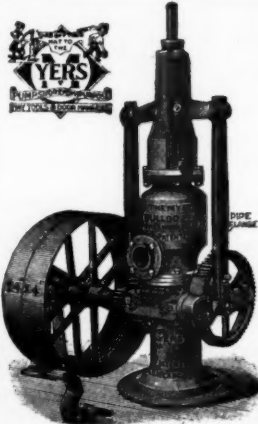
HENRY VOGT MACHINE CO., Manufacturers, Louisville, Ky

"MATHEWS" (REG. U. S. PAT. OFF.)

FIRE HYDRANTS

were the pioneer Hydrants in the South,
 and today, after more than fifty years,
 continue to hold first place in the Water
 Works Field.

R.D. WOOD & CO.
 ESTABLISHED 1803
PHILADELPHIA, PA.



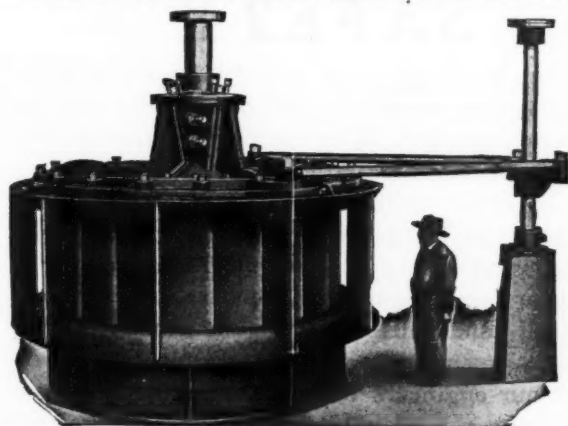
Why Many Myers Bulldozer Power
Pumps and Working Heads
Give from Fifteen to Twenty Five
Years of Satisfactory Service.

They are correctly designed,
 simple of construction, easy to
 install and operate, and built to
 stand severe service with a mini-
 mum of wear and breakage. Their
 dependability as pumpers of water
 is vouched for by thousands of
 users. If you are interested in
 hand or power pumps for home,
 farm or factory, write us for cata-
 log and prices.

The F. E. Myers & Bro. Co.,
Ashland, Ohio

LEFFEL

TURBINE WATER WHEELS



HIGH SPEEDS, HIGH POWERS, HIGH EFFICIENCIES

"All of our turbines are designed and built to suit location and requirements, by engineers and experts who have had years of experience in this particular line of work. We fully guarantee our Turbines and results developed."

Bulletins Forwarded Upon Request.

The James Leffel & Co., Springfield, Ohio

BRANCH OFFICES:

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BOSTON, MASS. 80 Boylston St.
ATLANTA, GA. Fourth Nat'l Bank Building
MINNEAPOLIS, MINN. Plymouth Building
LANCASTER, PA. Woolworth Building
PETERSBOROUGH, ONT., CANADA, William Hamilton Co., Ltd.

Pennsylvania Pumps and Compressors

Pennsylvania
Pump & Compressor Co.
Easton, Pa.

MORRIS Since 1864

CENTRIFUGAL PUMP

Since 1864 Morris has been building Centrifugal Pumps, Hydraulic Dredges and Steam Engines. You can depend upon the Morris reputation.

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Agents in Principal Cities

Pumps Aurora Pumps

Centrifugals

Horizontal and Vertical split open and Enclosed Impeller types. Deep well turbine centrifugals. Deep well power Heads.

Aurora Pump & Mfg. Co., Aurora, Ill.

EARLE - CENTRIFUGAL - PUMPS

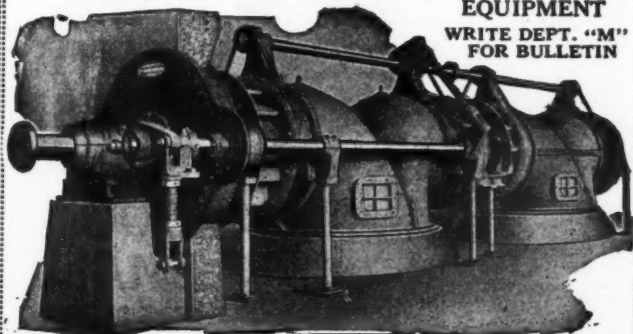


For all purposes where Centrifugal Pumps of the better class are adapted

The Earle Gear & Mach. Co.
Philadelphia, Pa., U. S. A.

S. MORGAN SMITH CO., YORK, PA.

BUILDERS OF HIGH GRADE WATER POWER EQUIPMENT



WRITE DEPT. "M"
FOR BULLETIN



WELL DRILLING AND DEEP WELL PUMPS

We do the engineering, and have had 25 years' experience solving water problems satisfactorily for textile mills.

SYDNOR PUMP & WELL CO., Inc., Richmond, Va.

PULSOMETER STEAM PUMP

See large ad in 3rd issues and Resale Department 1st issues.
223 West 42nd Street, New York City, N. Y.

COOK DEEP WELL PUMPS

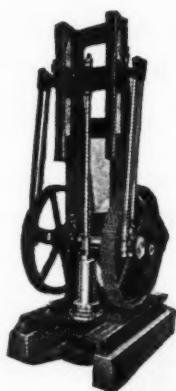
For Steam, Belt, Direct Connection of Electric Motor or any other convenient form of drive, Single and Double Stroke

Cook's Patent Brass Tube Well Strainers

Deep Well Cylinders

Sucker Rods and Well Tools

Deep Well Pumping Systems Installed Complete



COOK
Single-Stroke
Deep Well
Power Head

WRITE FOR CATALOGUE No. 14-H

A. D. COOK
Lawrenceburg Indiana

COOK
Patent
Brass Tube
Well Strainer



LAYNE WELL WATER SYSTEM

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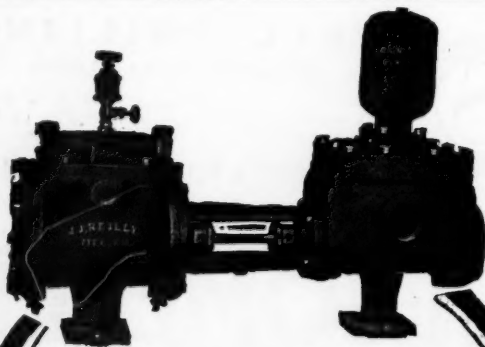
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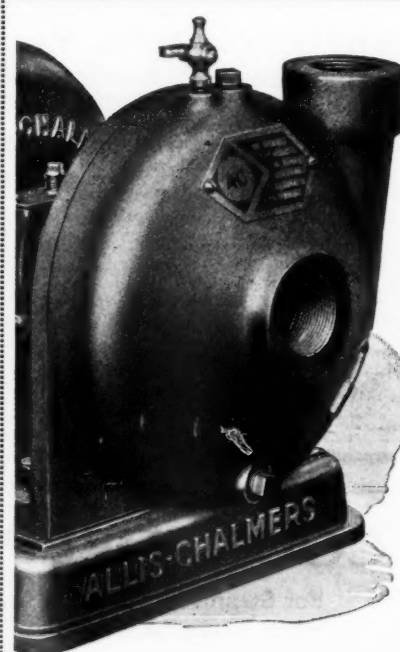
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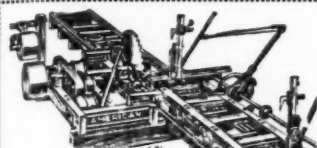
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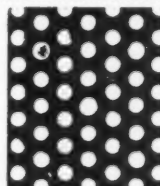
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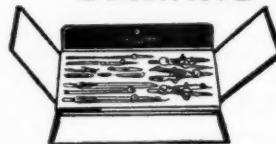
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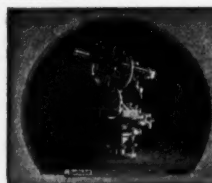
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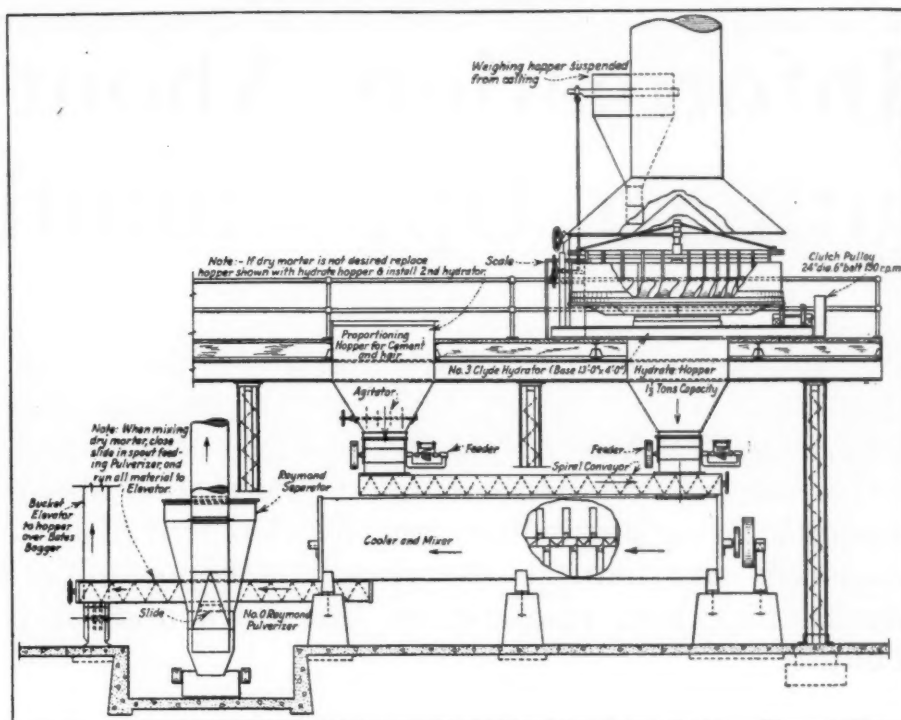
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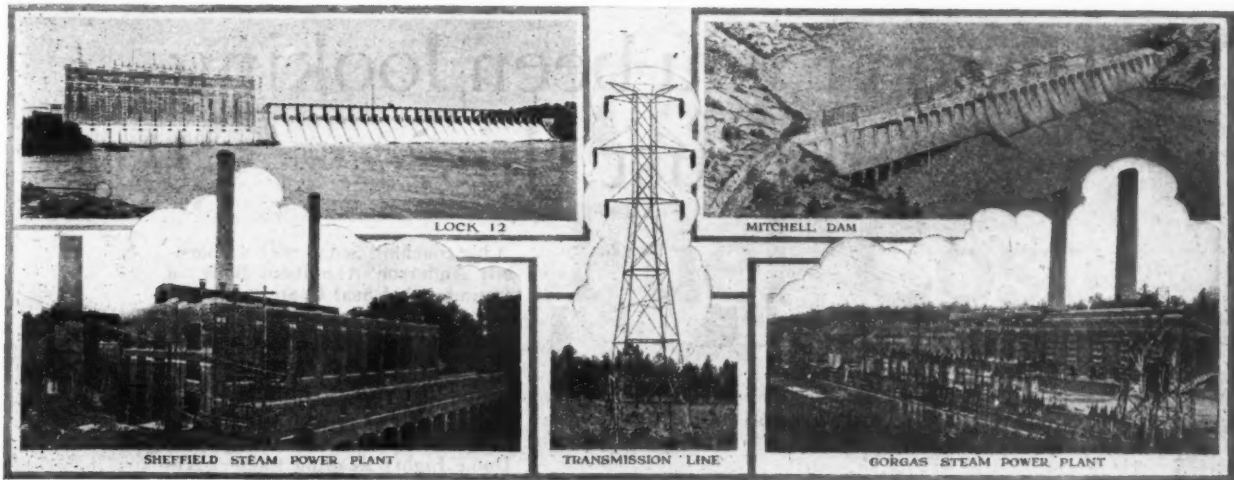
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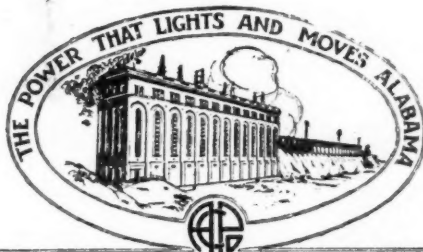
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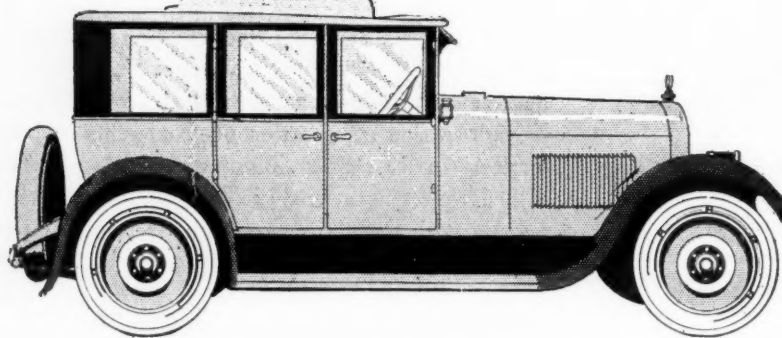
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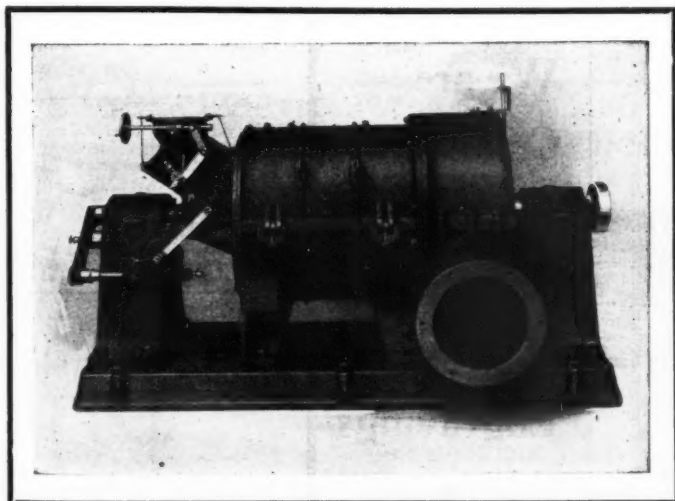
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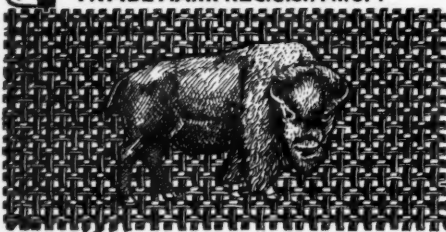
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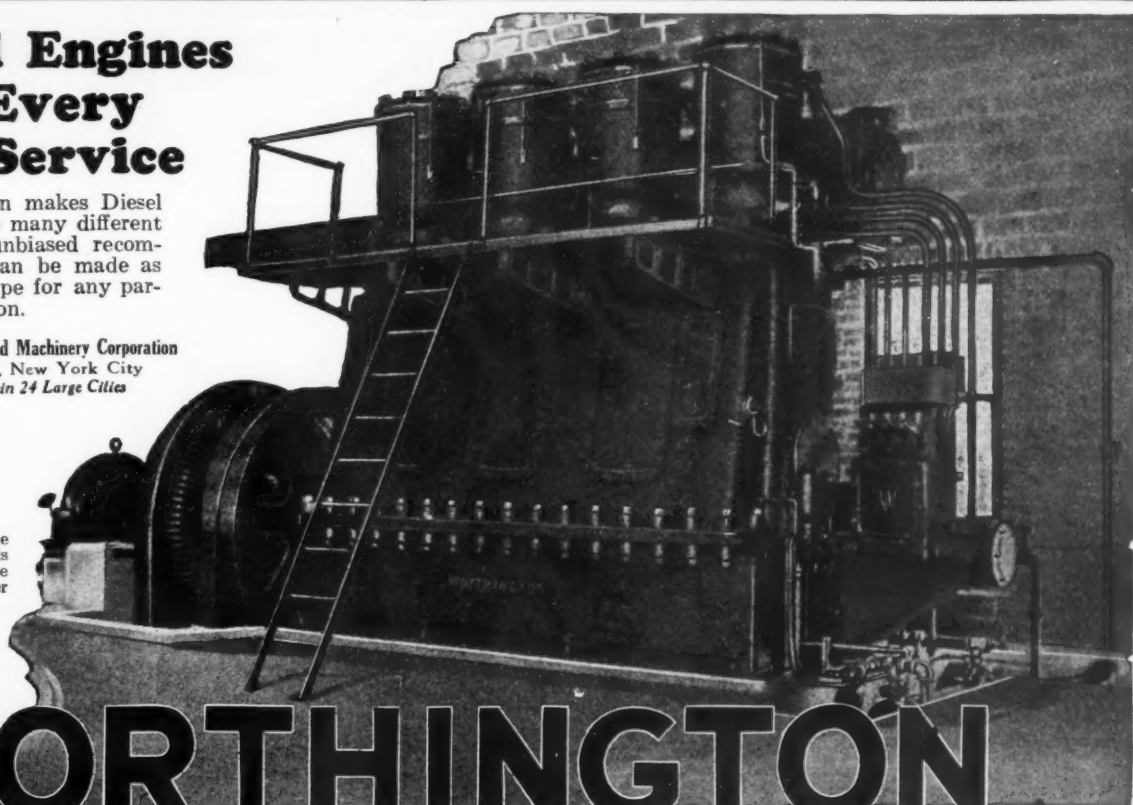
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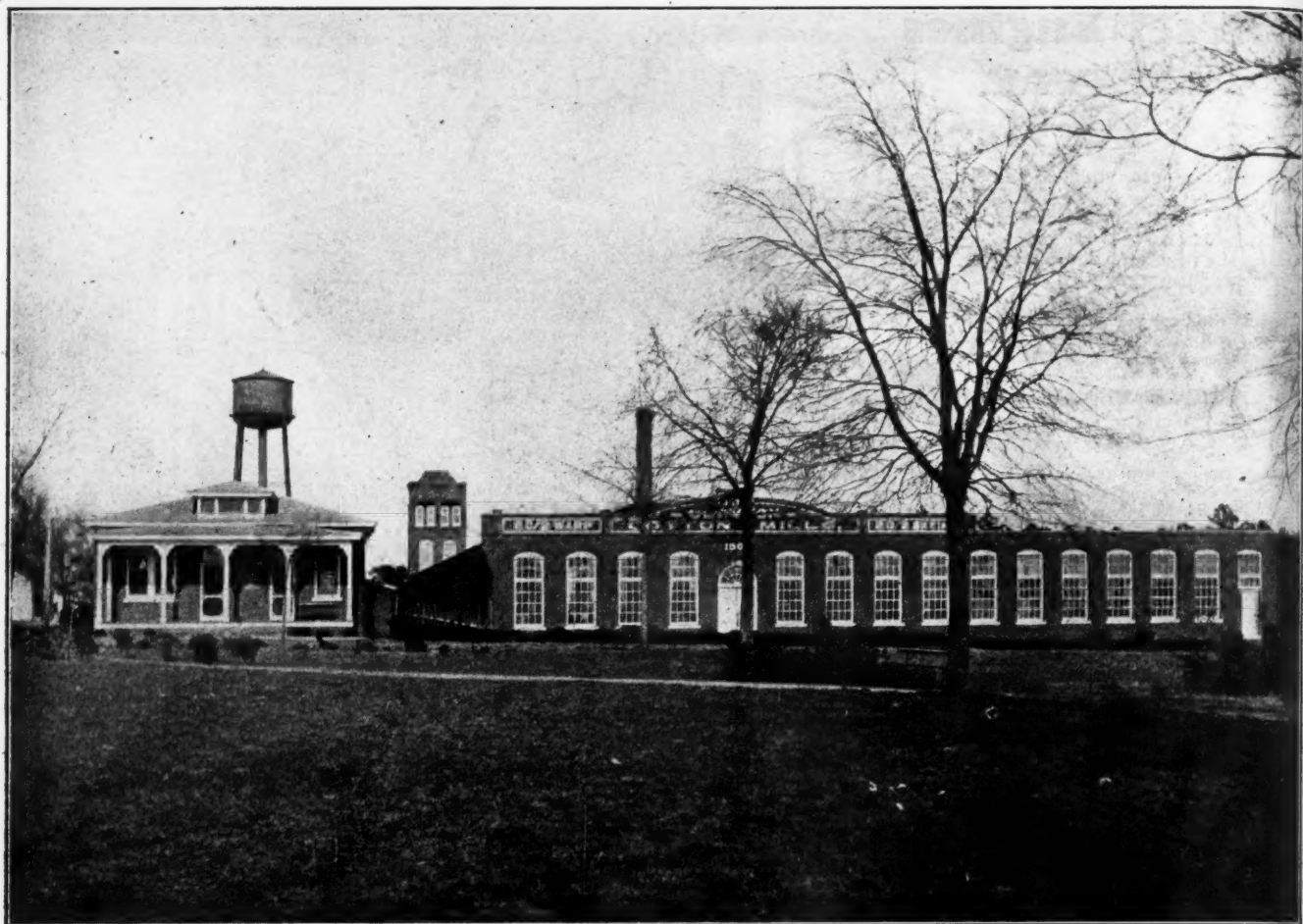
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Manufacturers Record

Exponent of America

JULY 12, 1923

Volume LXXXIV

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PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO., BALTIMORE, MD.

Branch Offices: New York, 901 Singer Building; Chicago, 11 South La Salle St.; Boston, 734 Old South Building; Cincinnati, 923 Union Trust Building.

SUBSCRIPTION RATES

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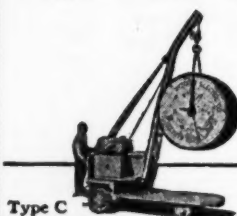
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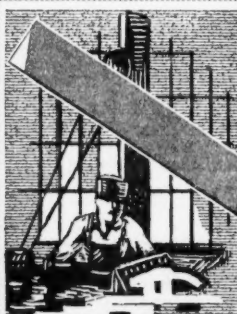
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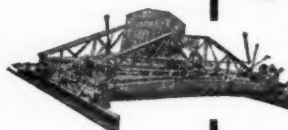


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Vol. LXXXIV No. 2
Weekly.

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PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Cor. Commerce and Water Sts.
BALTIMORE, MARYLAND

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HOW FACTS ABOUT THE SOUTH IMPRESSED A FRENCH OFFICIAL.

MR. BEN K. RALEIGH, the Paris representative of the Whaley-Eaton Service, Washington, in writing to the MANUFACTURERS RECORD in regard to the Blue Book of Southern Progress, says:

"The following may interest you:

"On the day the Blue Book came to me through the mails I carried it along to read during a rather long taxi-cab journey which ended at the French Foreign Office. There, while in conversation with one of the very highest Government officials, a gentleman who takes the greatest interest in American affairs, I laid the book, for a moment on his desk. A few moments later I saw that he was looking at the cover title and asked him whether he was interested. He replied that he didn't know whether he was or not, that he knew nothing of the book, but that the title and the typography of the cover page had attracted his eye.

"There's more here than meets the eye," I said, and handed him the book. After five minutes he apologized for reading while I was present, BUT KEPT ON READING. HE READ FOR A FULL THIRTY MINUTES. I had an engagement at the American Embassy and had to leave him. He said that the book had been a revelation to him, that it had told him facts and given him figures of which he had never before dreamed; that it was one of the most valuable compilations and that it had entirely changed his ideas of the South of the United States. 'I must make my ideas over' he said, 'the future of America appears to lie in the Southern States. The French Government is glad to know these things.'

"Of course, I had to surrender my prized Blue Book to him. It is now a part, and I venture to suggest, a frequently consulted part of the archives of the Paris Government.

"You are doing a great work for the South, and he who works for the South works for the good, the upbuilding and the future and continued prosperity of all America. More truly every day are you the Exponent of America.

"My congratulations and compliments."

Here is one more reason why Southern people should read the Blue Book of Southern Progress to millions of people in this and other lands.

DESTRUCTION OF STATES RIGHTS BY CIVIL WAR USED AS ARGUMENT BEFORE SU- PREME COURT AS REASON WHY FEDERAL RESERVE SYSTEM SHOULD CONTROL EN- TIRE FINANCIAL INTERESTS OF THE COUN- TRY AS AGAINST STATE BANKS.

THE argument of Henry W. Anderson on behalf of the Reserve Bank of Richmond before the Supreme Court of the United States is one of the frankest, most amazing revelations of the inner thought of the Federal Reserve management which has ever been made public. In that argument, Mr. Anderson specifically claims that the aim of the Federal Reserve System is for the purpose of concentrating the entire banking and financial power of the country under the control of that organization. He frankly admits that there may be individual cases of hardship as a result of the work which the Board has been carrying on in seeking to secure absolute national control of the entire banking system.

He stated that it took the Civil War to establish control over the political agencies of this government. Surely if a Virginia attorney can look with favor upon the complete domination in Washington of all states rights, as we formerly knew them, we have travelled a long distance from the views of those who founded this government. From Mr. Anderson's argument we take his frank admission that this is a fight to concentrate the entire banking and financial power of the country in the Federal Reserve System. On that point, he said:

"Now, if your honors please, I have not had an opportunity to review, as we have reviewed in our brief in this case, the facts leading up to this legislation. But as a matter of fact, it must be obvious that this particular controversy is the concluding act, we might say, in a long controversy on the subject of State or National control of the banking system of the United States. It has varied from time to time in this country.

"First, there was the period of National control up to 1835; then the period of State control up to the Civil War; then the gradually growing period of National control, until it culminated in the enactment of the Federal Reserve Act, which was intended to place the reserve organization of the banks of the country in the Federal Reserve banks, to concentrate them where they would be most available, and as an incident of that, to allow these banks to clear at par and relieve the country of the great burden incident to this exchange charge, so-called, which was no longer necessary, owing to the change in economic and commercial conditions.

"That was a part of the general controversy which has been going on in this country from the formation of the Government, on the question as to whether State or National control should prevail. The Constitution creates a complete commercial system: the control of interstate commerce, and the control of the financial system, both through positive

provisions prohibiting the states from issuing bills of credit and things of that kind.

"It took the Civil War to establish the control over the political agencies of Government, the separate National control. It has taken 100 years of the decisions of this Court to establish control over interstate commerce; and the financial system is an essential element of that controversy; and this controversy is the culmination of the development of that control for more than 100 years.

"There may be individual cases of hardship; but the general interest of the country required the establishment of a National control over the important agencies of commerce, of which the banking system constitutes a part; to the end that this country may be equal to the emergencies of the present and may expand to meet the commercial needs of the future."

In reply to these statements Mr. Alexander W. Smith, representing the state banks of North Carolina in this fight said:

"It seems strange to me that counsel called the attention of the Court to the history of the contest between State and National bank systems. He is entitled to all the comfort he can get from that history. I certainly hope that the lessons of that history may be driven home to the Federal Reserve Board, which dominates the Federal Reserve System, before it is too late, and the Federal Reserve System itself has been driven out of existence as the first and second United States banks were driven out of existence, because of their desire to override State banks and monopolize the banking resources of the United States in a National system.

"There has never been a day, if your honors please, since the organization of this Government, when the State banking institutions did not have more banking power; were not more widely distributed; did not perform more useful service to the common citizens of the United States—than the national banking systems have ever performed.

"And that is true today. When the second United States Bank undertook to drive into its coffers practically all the banking resources of the United States, the issue became nation-wide. The campaign for a second term as President of the United States by President Jackson was fought out on that issue; the people responded, and the immortal Henry Clay, even, was defeated in the electoral college by five to one on that issue. The sole issue was whether or not the national system should override the State systems of banking in this country.

"This campaign against outside State banks that has been waged for four years—and you might as well say that there had not been a state of war between the Allies and Germany for four years as to say that there has not been a serious and bitter war between the Federal Reserve System and the State systems for the four years last past—has, at the very bottom of it, if your honors please, the desire and the intent by administrative methods through the Federal Reserve Board, to drive into the coffers of the Federal Reserve banks practically all the banking resources of the United States.

"If your honors please, the Federal Reserve Board and the Federal Reserve System does not care a snap of the finger for universal par clearance of checks. They know it is as much a physical impossibility to transport money from one place to another in this country without expense as it would be to transport persons, property and thought without expense. That cannot be done."

Comment would seem almost superfluous.

In connection with the discussion of the actions of the Federal Reserve Board this question may appropriately be asked:

Does the Federal Reserve Board advocate branch banking generally?

If so, and if branch banking should be generally estab-

lished, would not 30,000 State and National Banks be destroyed, and the entire banking business be absorbed by a few great institutions as in Canada and Great Britain?

Mr. Anderson's remarkable speech might justify the interpretation that as the Civil War brought about the destruction of State rights, so the time has come to break down all State banking and concentrate the finances of the country in the Federal System. The more Mr. Anderson's speech is studied the more astonished the country will be at such an argument as he advanced looking to the breaking down of State banking business in the interest of banking under the Federal law, or, in other words, the Federal Reserve System carried to the utmost limit of its possible power.

IS THIS MAN STILL ON THE FEDERAL RESERVE BOARD?

JOHN SKELTON WILLIAMS, formerly a member of the Federal Reserve Board, a man whose integrity and honor has never been questioned, in his address in Georgia on July 14, 1921, said:

"Upon another occasion when certain policies were being discussed in the Federal Reserve Board, which were being opposed on the ground that they might result in forcing the failure or retirement from business of many small state banks throughout the country, a certain member of the Board, who has never been conspicuous for a knowledge of banking or an adequate comprehension of the difficulties which the country has had to face in the past year, spoke up and said in effect that

"IF THIS PLAN MEANS THE FAILURE OF THE SMALL STATE BANKS, THAT NEED NOT STOP IT; IN FACT, IF WE CAN'T GET RID OF THE SMALL STATE BANKS BY ANY OTHER METHOD, IT MIGHT BE AS WELL TO GET RID OF THEM THAT WAY."

"That is to say, by their failure. It was the same statesman and member of the Board who a few weeks later condoned the action of a large bank in a big city which had been discovered to have charged a valued customer the equivalent of about 200 per cent per annum interest on a loan of several hundred thousand dollars for about six months, with the remark that "all banks charge those rates, more or less." His imputation upon the character and methods of the banks of the country I resented instantly, for a large majority of our banks are operated decently, honorably and efficiently, and most of them would not countenance for a moment such interest rates as those which I deprecated, and which a colleague on the Board sought to condone or justify."

Who was the heartless member of the Board who made that statement?

Is the man who was thus willing to wreck state banks still a member of the Board?

We suggest that when the actions of the Board again come before the courts that Mr. Williams be summoned in order that he may have the chance to testify under oath as to the name of the member who made these statements.

PLAYED FOR SUCKERS.

THE London Daily News, commenting on the agreement secured by a deputation of British cotton industries to the United States regarding the working of the new American cotton standard, says it is good news for Lancashire and through Lancashire to Great Britain that the English deputation has secured an agreement from America that certificates of decisions by the appeals committee in Liverpool and Manchester will be accepted in Washington as conclusive evidence in all questions of dispute as to grades.

We are not surprised that this is heralded in Great Britain as good news for Lancashire. Once more the English traders have played us for suckers and our American people freely bit, swallowing the bait and hook and the sinker.

THE INTERSTATE COMMERCE COMMISSION ORDER ON PRO RATA DISTRIBUTION OF COAL CARS AS SEEN BY THE MINORITY REPORT.

It may be some months before there is a general realization of the effects of the Interstate Commerce Commission order that absolutely pro rata distribution of cars—including private cars—to coal mines be established by September 1. In endeavoring to see that every coal mine which asked for cars to ship its product should be supplied the Commission has disregarded the needs of the railroads as well as of other public utilities and the requirements of big industries all of which demand a regular supply of the best fuel. But the majority of the Commission issued the order despite the objections of four of its eleven members who gave their reasons in opposition.

Commissioner Mark W. Potter, formerly a railroad officer, gave it as his opinion that the Commission is without authority to prohibit the use of assigned and private cars, as has been authorized for years, by requiring them to be distributed pro rata and he called attention to the fact that in the early days of railroads all cars were owned by shippers and that the charters of some railroads now oblige them to haul private cars.

"Just how industry will get along without the private car," said he, "is difficult to see. The common carrier and the public utility can be taken care of after a fashion through emergency orders, but at great inconvenience and expense to everyone else. Not so with a private industry. Take, for illustration, a large steel plant, upon the continuous operation and financial success of which many thousands are dependent for employment and more thousands are dependent for low-priced commodities produced at low cost. Such an industry may use a thousand tons of coal and coke per day and require deliveries every day. Economy and certainty of fuel constantly suggest that it control its source of supply. It operates its own mines and coke ovens, which are ten, fifty, or hundreds of miles away. Fluctuating demand on carrier equipment and uncertainty of carrier supply have compelled it to buy cars, which the railway hauls back and forth. It now enjoys continuous operation. The majority report says that no matter how many cars the industry has, it can not use any greater percentage for its requirements than the railway is able to furnish to all mines on its line for their requirements. Its extra cars must stand idle or it must divide all of its cars among all mines on the carrier's line and itself take only a pro-rata share. The number of its own cars that it may use will not depend upon its own need, but upon the need of others. When there is only a 50 per cent car supply for other mines, it must reduce its operation 50 per cent and shut down half of the time. Labor must be thrown out of employment, manufacturing costs must soar and the whole country must suffer. * * *

"Costs and selling prices can be brought down through control of transportation. If transportation were available to handle eleven or twelve million tons of coal steadily the surplus of available coal would break prices by forcing competition among producers, would close up high cost mines, concentrate activity in 50 or 60 per cent of the mines, furnish steady employment at fair wages to the right number of men who should be engaged in coal mining and release the surplus for other industries where they are needed, reduce transportation cost, and break the vicious circle of high prices. A surplus of 10 per cent above the market demand for any

article of commerce represents the difference between a price raising shortage and a price-lowering surplus. A sustained surplus of coal will bring reduction. Everything is favorable for that surplus except transportation. * * *

"The immediate answer to the problem is the assigned and private car. They will bring about continuous operation of efficient mines at low cost. There are many concerns which, if permitted, will furnish private cars. It has been brought to our specific attention that this is true of distributors in New England. Permit them the use of the private car and the New England coal bill will be reduced. Many public utilities throughout the country using large quantities of coal would operate their own mines or contract for entire mine output, thus insuring dependable supply and continuous operation at low cost. Men would drift to mines thus continuously operated, which is what should take place. High-cost mines would have to shut down, and that is exactly what the existing situation calls for.

"Every dollar that the private shipper puts into cars saves just that much railroad burden and to that extent serves the public's cost of carrying the railroads."

Other remarks of Commissioner Potter include the following: "The fact that there is in this country an enormous surplus of developed and equipped mines beyond the need makes reliability of car supply impossible so long as cars must be pro rated. * * * It is well known that mines assured of continuous operation favorable for low production costs will contract at lower prices. Opponents of the assigned and private car object to that desirable result. * * * The opponents of the private and assigned car demand that the interests of the many be sacrificed for the interests of the few and we have sustained them. Such is the gist of this entire controversy. Instead of prohibiting assigned and private cars their use should be encouraged. * * * The majority report ignores the aspect of the assigned and private car as a storage facility. Admittedly a carrier is at liberty to provide itself with facilities for the storage of coal and such is the carrier's duty within reasonable limits. Vast expenditures would be required to establish facilities to store coal in considerable quantities at various points. * * * Costs of handling fuel in and out of storage are substantial. Much coal thus stored would require removal to other points for consumption. The most economical storage facilities, all things considered, up to a certain amount, are bins containing from 50 to 100 tons, with wheels under them, to facilitate prompt and economical handling and movement as required. While the carrier is at liberty to install inefficient and inconvenient stationary storage bins, the majority report denies the right to provide storage bins on wheels (cars) if such are to be sent to the mines for coal and used to transport coal from the mines, even though such use would add to the available equipment and to that extent release cars for other commercial use."

Henry C. Hall, Commissioner, also said, "Use of the assigned car and the private car is not ideal, but it is at least practical, has been tested in times of stress, and no workable substitute therefor has been developed or is now prescribed. The alternatives left are confiscation by the carrier or priority orders by us. Is not this a recognition in another form of the public necessity that the carriers must have fuel in preference to other consumers? The majority would reserve to the Commission the right to direct a discrimination in the distribution of cars which it condemns as unlawful when practiced by the carriers. * * * We must therefore dismiss from our thought all consideration of the effect upon the mining industry of carriers' operations as producers or purchasers of fuel, and confine ourselves to what the carriers do in and about moving that fuel, bearing in mind that we have no power under the Act to take away from any carrier its rights. It has the right and it is its duty to secure an adequate supply of fuel. That cannot be denied or taken

from it. The public has the right to a transportation machine fully protected and able to function at all times. That right is not fully protected by service orders from us after an emergency has arisen. * * * Whether the assigned car is for the greatest good to the greatest number is apparently of no concern to the operators who assail it. Much of the opposition to the assigned car is based upon its effect upon mine labor. It is not for me to point out the shortcomings of the coal industry, overdeveloped as it is, with thousands of mines so situated that they can only be operated at a profit when there is a runaway market. An adequate all-the-year-around supply of transportation would leave many of these mines permanently closed, and naturally their operators become the stormy petrels of the industry. The records show that in six years the number of mines, not including wagon mines, grew from 3669 in 1916, to 8722 in 1921."

Winthrop M. Daniels, Commissioner, said: "The revocation of the rule, in my judgment, will jeopardize the regular supply of dependable railway fuel; it will make for increased locomotive failures by reason of the inability of the carriers to obtain the grade of fuel which is most efficiently employed; it will augment the price of railway fuel without appreciably affecting advantageously the price of commercial coal; and it will render inevitable, in times of emergency, a resort to emergency orders carrying priorities which, in essence, are an admission of the necessity and utility of the present practice. * * * With the violent fluctuations in the coal demand as between periods of industrial depression, it is perhaps questionable whether the railroad carriers can be reasonably expected to have ready at all times open top equipment of their own ownership capable of carrying the peak load. Many private cars have been provided by their owners for just these periods of peak demand. * * * It should also be remembered that the private car under the law as it now stands is not an outlaw. The Act contemplates the furnishing of service and of facilities by the owner or the shipper of freight. * * * I am free to say that many of the abuses connected with or attendant upon the assigned car rule might be properly controlled and virtually eliminated. I think, however, that the remedy proposed is likely to prove far worse than the difficulties experienced under the present practice."

Commissioner Frederick I. Cox based his objections to the order of the majority of the Commission upon the ground that the present practice of assigning private and other cars for railroad fuel is not unreasonable nor unduly prejudicial and he said: "I cannot consistently condemn a rule or policy which in its application lends itself to the more efficient and economical operation of both mines and railroads, and which in time of emergency must of necessity be applied in order to meet the urgent and imperative needs of the carriers and public utilities particularly and of the public generally."

The opinions of these four commissioners, outlining the evils which must follow the enforcement of the order of the commission, point clearly to what must be expected along these lines: Great industrial plants, although owning their own mines and having their own cars to haul their raw materials to their plants, will no longer be able to utilize them so advantageously; they will not be able to have assurance of adequate coal supplies and they will occasionally be compelled to shut down, while railroads not having coal mines on their lines not being known as coal roads, will have to purchase part of their fuel in the open market, for they will no longer be able to make contracts with assurance that they can have a regular supply. This, of course, will increase the cost of coal to them and more or less interfere with transportation service. Some orders for private car equipment are reported canceled as a result of the Commission's order and it is furthermore anticipated that Canadian purchasers of coal will now more than ever endeavor to get their fuel supplies in their own country.

BALTIMORE CLEARING HOUSE RESCINDS RULE AGAINST COUNTRY BANK CHECKS IN NORTH CAROLINA.

IN view of the recent announcement of the Federal Reserve Board that the facilities of the federal reserve banking system would not be extended to any banks which did not comply with its rules, the action of the Baltimore Clearing House last week in withdrawing its rule of March, 1921, concerning certain banking items in North Carolina is especially interesting. The recent decision of the Supreme Court of the United States upholding the right of state banks in North Carolina to make collection charges upon checks drawn against balances of accounts with them, completely overturned the contention of the Federal Reserve Board as expressed through the Federal Reserve Bank of Richmond, defendant in the suit, and showed conclusively that the federal reserve banks exceeded their authority under the federal reserve law in endeavoring by various means to compel the country banks to pay the face value of all checks against them in cash. After this decision the Federal Reserve Board made the announcement mentioned and it was accepted generally as evidence that the Board intended to throw every obstacle it could before the country banks to influence them to consent to remit at par.

This action of the Baltimore banks through their Clearing House Association therefore leaves their position with regard to checks on North Carolina state banks as it was before the rule of March, 1921, so that the banks, although they are members of the federal reserve system, will receive deposits of checks on state banks in North Carolina for collection and they may, if they choose to do so, accept them and credit them to their respective accounts at full face value without any collection charge whatever, the exchange charges being absorbed by the depositors respective balances if these balances are sufficiently large to yield interest in excess of the collection expenses. In other words it is left to a bank to decide whether any account is worth sufficient to it in the amount of its average balance to warrant collecting its checks from banks outside of the reserve system. Of course checks on these state banks are collected through channels outside of the federal reserve banks, but in this manner the needs of the customers of banks will be met and banking practice will go on as before the clearing house rule was made.

Baltimore banks in their entirety handle a great many checks on North Carolina banks and the amount of money involved in their collection is very large in their annual aggregate. That the Baltimore banks will gain very much more than they will lose by this action of their clearing house is plain. The checks will be collected through their respective North Carolina correspondents and the better feeling which necessarily will follow the Clearing House action will operate in the direction of enlarged business dealings and improved business relations financially and commercially. The Baltimore Clearing House made a blunder when it followed the teachings of the Federal Reserve Board but in reversing that action it now shows a degree of backbone and common sense worthy of high commendation.

COAL THROUGH PIPE LINES.

FINANCIAL AMERICA of New York gives considerable space to a report made by Mr. John W. Lieb, Vice-President of the New York Edison Company in regard to the feasibility of piping coal just as oil is now piped underground.

More than fifteen years ago the MANUFACTURERS RECORD published an article by a New York engineer advising that this be done, and pointing out the great saving that would be effected to the entire country by the shipment of coal by underground pipes instead of by railroads as at present.

OUR EXPORT AND IMPORT TRADE FOR ELEVEN MONTHS.

THE total value of our imports for May amounted to \$373,244,478, or a gain of \$121,000,000 over the corresponding month of 1922. The gain for the eleven months ended with May amounted to \$1,114,000,000, the imports for that period falling short only \$175,000,000 as compared with the exports for the same time.

Our imports showed a heavy gain from Europe, North and South America, Asia and Africa for the month of May and for the eleven months of the year, indicating the magnitude of our import trade which free traders constantly told us would be destroyed by a protective tariff. If it had not been for this protective tariff, which saved the country, we would have had such an overwhelming volume of imports as to have swamped our own industries.

Germany shipped us during the eleven months ended with May nearly \$45,000,000 more of its products than for the corresponding period of the preceding year. Belgium sent us nearly \$20,000,000 more; France \$10,000,000; Italy \$19,500,000; the Netherlands \$24,000,000; Spain \$5,000,000; Sweden \$14,000,000; the United Kingdom nearly \$162,000,000; Canada \$99,000,000.

From Mexico we bought \$11,000,000 more than for the preceding eleven months, and from Cuba \$153,000,000, our total imports from Cuba having been \$337,568,000 compared with \$185,000,000 in the corresponding period of 1922. Brazil and Argentina sent us an enormous increase, our imports from Argentina having been \$119,000,000 as against \$52,877,000, while the gain in imports from Brazil was \$37,000,000.

From Japan we bought \$77,000,000 worth more than in the corresponding eleven months of the preceding year. Australia sent us \$49,000,000 as compared with \$17,000,000; while from Egypt we bought \$45,000,000 worth of stuff as compared with \$31,000,000, using in all of these cases the round figures.

The details of importations for the month of May and of the eleven months ended with May, by countries, is as follows:

TOTAL VALUES OF IMPORTS OF MERCHANDISE BY GRAND DIVISIONS AND PRINCIPAL COUNTRIES.

Imports From— Grand Divisions—	Month of May		Eleven Months Ended May	
	1922 Dollars	1923 Dollars	1922 Dollars	1923 Dollars
Europe	73,949,343	102,277,877	754,073,960	1,072,150,347
North America	71,717,854	105,520,040	628,417,557	899,068,971
South America	33,032,182	49,400,716	259,739,178	434,399,793
Asia	64,372,348	99,984,947	626,584,758	904,785,866
Oceania	5,458,328	7,106,823	28,676,624	65,108,414
Africa	4,287,199	8,954,075	50,126,033	86,169,623
Total	252,817,254	373,244,478	2,347,618,110	3,461,683,014

Prin. Countries—	Month of May		Eleven Months Ended May	
	1922 Dollars	1923 Dollars	1922 Dollars	1923 Dollars
Belgium	4,525,016	5,226,884	37,898,426	57,532,300
Denmark	175,061	373,283	3,796,467	5,598,305
France	11,590,564	12,300,058	129,563,395	141,069,506
Germany	8,520,164	12,761,910	85,996,453	130,794,100
Greece in Eur.	2,540,439	656,838	17,928,010	18,749,250
Italy	5,584,431	5,769,499	56,555,477	76,026,635
Netherlands	5,211,173	7,652,265	47,195,287	71,175,894
Norway	830,320	1,662,601	10,837,444	17,095,030
Russia in Eur.	959	135,671	22,153	887,539
Spain	1,898,376	2,965,240	25,405,433	30,544,680
Sweden	949,368	1,641,810	21,301,120	35,754,781
Switzerland	2,503,267	2,533,006	38,396,821	32,133,434
Unit. Kingdom	25,438,999	44,038,801	243,212,453	405,080,126
Canada	28,249,429	36,282,055	277,251,118	376,566,708
Cent. America	3,457,595	4,732,249	27,315,910	34,504,585
Mexico	12,322,552	11,942,876	112,865,491	123,694,414
Cuba	25,289,275	49,952,725	185,483,822	337,568,173
Do. Republic	359,693	480,770	6,767,511	4,655,945
Argentina	6,082,053	16,874,598	52,877,204	119,012,685
Brazil	11,918,300	9,209,588	92,586,779	129,752,635
Chile	5,140,275	13,902,956	32,267,219	85,702,610
Columbia	2,267,177	3,762,223	38,266,001	35,852,208
Peru	1,284,867	1,358,622	13,035,142	14,591,031
Uruguay	3,598,610	2,019,382	10,891,589	25,477,541
Venezuela	1,539,689	986,731	11,382,315	12,946,889
China	8,023,844	14,564,672	99,729,067	155,525,305
British India	7,546,412	14,424,251	68,273,210	110,111,444
Straits Sett'l's	6,328,635	18,358,876	64,583,973	119,822,272
Dutch E. Indies	2,985,814	4,651,073	25,321,841	42,316,746
Japan	29,692,987	33,112,624	271,689,592	348,397,231
Philippine Is'ds	5,685,412	6,654,146	52,108,077	64,119,182
Australia	3,781,726	4,693,856	17,725,208	49,058,946
New Zealand	1,660,912	2,191,503	9,040,123	13,794,251
Br. So. Africa	604,594	2,820,408	5,148,339	14,031,463
Egypt	1,024,834	2,701,439	31,197,121	45,135,578

Our export trade showed a gain of \$9,000,000 in May over May of 1922, and a gain of \$200,000,000 for the eleven months ended with May over the corresponding period of the previous year; but there are no great outstanding gains in our export trade as compared with the remarkable gains made in our importations. In many cases there was a considerable decrease although there was a gain in our exports to Canada of \$98,000,000; to Argentina of nearly \$27,000,000; Brazil of \$8,000,000; Chile \$10,000,000; and Cuba \$42,000,000.

We shipped much less to Japan during the eleven months ended May than for the corresponding period of the previous year, there being a decrease of \$36,000,000 as compared with an increase in imports from Japan of \$76,000,000.

In our volume of exports Germany ranked third on the list, being exceeded only by the United Kingdom and Canada, having for the eleven months taken from the United States \$274,000,000 as compared with \$322,000,000 for the corresponding period of 1922.

An interesting study of the exports by countries for the month of May and for the eleven months ended with May, is as follows:

TOTAL VALUES OF EXPORTS OF MERCHANDISE BY GRAND DIVISIONS AND PRINCIPAL COUNTRIES.

Exports To:— Grand Divisions—	Month of May		Eleven Months Ended May	
	1922 Dollars	1923 Dollars	1922 Dollars	1923 Dollars
Europe	168,758,670	138,540,575	1,880,814,758	1,895,228,851
North America	71,049,546	103,970,810	820,987,596	946,102,081
South America	18,157,660	22,508,557	169,883,062	234,028,746
Asia	35,543,461	36,971,190	440,859,940	400,332,167
Oceania	7,530,277	9,819,460	76,558,917	107,777,933
Africa	6,534,214	4,838,121	46,935,466	53,528,598
Total	307,568,828	316,648,713	3,436,039,729	3,636,908,376

Prin. Countries—	Month of May		Eleven Months Ended May	
	1922 Dollars	1923 Dollars	1922 Dollars	1923 Dollars
Belgium	7,080,628	8,148,767	94,213,287	95,937,720
Denmark	2,974,522	3,673,743	33,024,732	34,831,348
France	20,117,273	20,524,422	207,993,764	249,320,556
Germany	26,106,897	22,967,061	322,308,997	274,148,184
Greece in Eur.	858,805	719,187	10,329,557	11,709,417
Italy	9,473,289	9,913,955	126,241,266	160,373,641
Netherlands	8,078,616	7,648,180	116,920,819	106,038,751
Norway	2,959,044	3,668,475	26,255,504	30,187,114
Russia in Eur.	1,589,067	366,135	12,624,727	10,235,257
Spain	4,154,923	3,408,652	59,862,660	57,278,004
Sweden	3,025,146	4,031,538	27,274,383	34,359,411
Switzerland	313,291	514,855	4,641,628	4,697,380
Unit. Kingdom	74,486,298	48,413,853	768,631,611	768,235,863
Canada	44,287,535	66,086,225	497,474,563	595,750,519
Cent. America	3,747,806	5,159,505	40,559,446	45,898,717
Mexico	8,663,167	10,489,043	128,620,670	103,681,855
Cuba	10,251,643	17,440,207	104,311,001	146,206,806
Do. Republic	719,295	1,027,347	9,762,860	10,644,825
Argentina	8,063,792	10,276,108	71,471,705	98,290,600
Brazil	2,540,991	3,606,353	34,206,921	42,771,286
Chile	1,876,154	2,391,629	14,318,561	24,862,151
Columbia	1,682,060	1,780,334	14,299,886	22,152,366
Peru	1,592,500	1,231,223	11,375,812	14,244,652
Uruguay	691,284	1,437,078	8,621,421	12,272,779
Venezuela	631,603	866,942	6,987,713	9,228,957
China	8,734,255	8,064,256	89,881,669	88,106,074
British India	1,826,285	1,917,872	32,238,333	25,800,311
Straits Sett'l's	407,172	562,270	4,041,346	5,869,674
Dutch E. Indies	418,794	895,356	7,992,163	9,052,651
Japan	15,935,568	19,889,379	232,170,944	195,990,359
Philippine Is'ds	4,316,151	3,404,726	35,307,425	40,290,641
Australia	5,984,212	7,525,776	58,952,284	84,534,701
New Zealand	1,379,389	2,123,929	16,063,766	21,735,865
Br. So. Africa	2,399,114	2,137,997	16,457,410	22,644,531
Egypt	354,406	610,671	8,975,351	6,298,898

THE REASON FOR THE SHORTAGE OF MECHANICS.

LEANDER MARX, plumbing, heating and drainage engineer, of New Orleans, writes the MANUFACTURERS RECORD:

"Words are inadequate, to properly express my appreciation for being permitted to read your article on Page 82 of the MANUFACTURERS RECORD of July 5, entitled 'Why We Are Short of Mechanics.'

"As a reader of many trade magazines and as one who has worked from helper to mechanic, and from mechanic to boss, this article tells the whys and wherefores of the shortage of mechanics, better than any other literature I have ever read.

"I am so impressed with the article that I am going to send it to several of my trade papers with the request that they publish it in full."

SECRETARY PEARSE OF THE INTERNATIONAL FEDERATION OF MASTER COTTON SPINNERS AND MANUFACTURERS NOW IN UNITED STATES.

MR. ARNOLD S. PEARSE, Secretary of the International Federation of Master Cotton Spinners and Manufacturers' Association of Manchester, "sailed from England on the 23d of June for a ten weeks' tour of the United States cotton belt."

Our readers will probably remember that at the meeting of the National Agricultural Society of Brazil on August 16, 1921, Mr. Pearse discussing the world's cotton situation said:

"The United States of America, the largest supplier in the world of cotton, has evidently come to the extreme limit of its capacity. The high wages ruling there make the growing of cotton unremunerative and we were told on the authority of the President of the Cotton Farmers' Union [American Cotton Association] that the American cotton farmer would no more continue to allow his wife and children to work in the fields. With such fantastic ideas it cannot be expected that there will be an increase in the cotton acreage of the United States of America."

Quoting further from the Blue Book of Southern Progress on the views expressed by Mr. Pearse and other English manufacturers we take the following:

"Mr. Pearse's view that the desire of the cotton grower to keep his wife and children out of the cotton fields is a 'fantastic idea' is in harmony with the fight which European cotton manufacturers have always made against cotton growing at a profitable price to the grower. Sir Charles W. Macara, one of the foremost cotton manufacturers of England, in an address delivered on March 13, 1923, before a largely attended and enthusiastic meeting of the Master Cotton Spinners of Lancashire, was almost as cold-blooded as was Mr. Pearse in his speech in Rio. Sir Charles has posed at times as a believer in a living price for the cotton grower, but his influence has invariably, so far as we can learn, been thrown against a decent price for cotton."

"In his address before about 900 cotton manufacturing people of England, referring to the advance in price of cotton at the time of Sully's activities, which was the first time in fifty years that cotton had paid a living price to the grower, Mr. Macara said:

"Foresight was brought to bear upon the available supply, which was obviously far short of the requirements of the trade, and the working hours in the mills were reduced from 55½ to 40 per week. The Sully corner was defeated, and the International Cotton Federation was inaugurated."

"Mr. Macara thus frankly admits that though there was an extreme cotton shortage the International Cotton Federation of Europe put into operation its scheme for breaking down the price and wrecking those who were united with Sully in securing better prices for cotton, by reducing mill operation from 55½ hours to 40 hours per week. Mr. Macara praises the work of the cotton manufacturers in thus breaking the prices at that time, but he has no word of sympathy for the cotton growers who were for once in their lives getting a living price out of their product."

DIVERSIFIED FARMING FOR FLORENCE.

STIRRED by the success of what has come to be known as the Turner County System of Farming, now being successfully adopted in Georgia, the business people of Florence, S. C., have launched a campaign to follow the wise example of Turner County people in developing diversified farming.

Wherever diversified farming has been intelligently pursued with the co-operation of the people in the towns and cities of a county success has followed. The business men in every town in the South by wise action could be instrumental in helping to bring about diversification. The farmer should find as far as possible a local market for everything which he can raise. In this way diversified products will not go a-begging for a market.

Florence has an opportunity to bring about as much prosperity through diversified farming as have other communities which have encouraged this work.

A. B. FARQUHAR OF YORK, PA., ON THE VALUE OF PROHIBITION.

Editor Manufacturers Record:

In my opinion, notwithstanding the apparently widespread violation of the Volstead Act, the law has abundantly proved its wisdom by the results so far obtained. As a manufacturer, I have before me daily proofs of the efficiency of the Eighteenth Amendment in preventing drunkenness. The beneficial result of the prohibition law as shown in an industrial establishment is especially evident on Monday mornings, which used to be an anxious time for managers and foremen because of the number of workmen who were sure to be absent, due to the all too common Saturday and Sunday carouse. Now there are few vacant places, and employees are in good humor.

The practical benefits of the Volstead Act which I have noted in our own factory, I am assured by my friends in manufacturing circles are typical of conditions in most other plants.

But this is putting the matter on the low ground of practical utility and gauging the results in terms of increased working power and efficiency of the individual. What about the other and probably more important benefits that accrue to the men themselves and to their families? It is my belief that the general good which has resulted to individuals and communities from the Prohibition Amendment is almost incalculable. Homes that formerly were made wretched by drink, now have a chance to enjoy some of the comforts and satisfaction that come of a saner use of the family income. Money is saved, the standard of living has been raised for many, and I feel sure that were the question of repeal of the Eighteenth Amendment put up to those who formerly were addicted to drink and frequenters of the saloon, the possibility of its abrogation would be remote.

The disturbing factor in the present situation is the deliberate violator of the law, who may otherwise be, and who probably considers himself, a good citizen. Those who, having no principles, are ready to engage in any illegitimate occupation that promises profit, can be and are being dealt with by law and bootlegging is becoming more and more hazardous. Scarcely less despicable and far more insidiously evil is the disposition of many so-called good citizens, high and low, who are violators of the law because they pander to a depraved appetite or take pleasure in defying what they consider an infringement of personal liberty. Many of these persons are quite ready to visit extreme condemnation upon the man who commits some act of lawlessness against their security or property, but fail to recognize that all lawlessness is of a piece, and if they would expect respect for law in others they must set an example by respecting it themselves. The law has been passed, it is the expressed will of the great majority of our people, and it is entitled to the support and observance of every citizen who believes that adherence to law is the only safeguard of the stability of a government based on law.

A. B. FARQUHAR.

Mr. Farquhar is known throughout the United States as one of its foremost business men. A large manufacturer, he is in direct touch with all of his employees. He knows the effect of a National Prohibition law and he urges the supreme importance of the respect of law by men who claiming to be reputable citizens are now violating it.

WAKE UP.

MR. FRANK STEFFNER, President of the Chattanooga Armature Works, Chattanooga, Tenn., writes:

"Your article, 'The Decision of the I. C. C. and the Virginian Railway' is timely and to the point. It is certainly time that the people of this country wake up and declare a Fourth of July Declaration of Independence, and let the various bureaus and commissions know that they are the creatures of the people, instead of the people being their creatures. Perhaps the I. C. C. has joined hands with the A. F. L. and the United Mine Workers to boost the prices of coal and lumber, so the Dear People may suffer."

"I trust you will continue to keep this matter moving to as successful an end as you did the Federal Reserve Board and Mr. Harding."

GROWING MENACE OF IRRESPONSIBLE AUTOMOBILE DRIVERS SHOULD BE CURBED.

NOT so many years ago practically every automobile owner was financially responsible. With the increasing number of motor vehicles in operation, the menace of the irresponsible automobile driver is assuming alarming proportions. Pedestrians and automobilists are constantly in danger of wild and reckless drivers running them down. It is bad enough when such drivers or car owners are financially responsible for damages, property or personal, so that their unfortunate victims may have some monetary redress in case of an accident to them. But the greatest and growing menace are the irresponsibles who buy a car, on the installment plan in most cases, carry no liability insurance, have no money and own practically nothing of value, for they spend every cent of a salary or wage on themselves or their family. There are others in this class also who buy an old piece of "junk" for about \$150 and then run "wild" over the roads, a menace to everybody.

An illustration of many "accidents" of this kind, some resulting seriously and others merely causing property damage, was given recently in the case of a young woman who was driving her car carefully and with consideration when another car came tearing out of a cross road some distance ahead, and the driver, dashing to the wrong side of the road, ran head on into the car driven by the young woman. Her car was wrecked and she was thrown through the windshield shattering the glass, which cut her wrist so badly that her hand had to be amputated and she was in the hospital for several weeks from her injuries and the shock to her nervous system. The reckless driver who was responsible for the wrecking of the lady's car and maiming her for life was brought into court and given the maximum fine of a paltry \$50 for driving on the wrong side of the road, and set free, as no other charge could be made against him.

Penalties for violation of traffic laws are entirely too light. In some instances this is the fault of the wording of the law but in others it is in the fault of the sentencing judge. Many courts recently have begun to tighten up on violators of traffic laws where there is involved any serious question of the safety of the public. This is especially true where the car operator has been guilty of driving while intoxicated.

The man who caused the accident to the lady's car which resulted in the loss of her right hand, deliberately broke a law, crippled a young woman for life, and caused a property damage of about \$1000, with the exception of a small salary and the ownership of a partially wrecked second-hand car that cost him originally about \$150, had nothing, and when he was asked as to his ability to take care of the liability and damage in the case said he had no money and no property, and exclaimed, "Here I am, what are you going to do about it?"

This is what is going to be done about it. Such "accidents" are becoming too common. More stringent laws carrying a heavy jail sentence and fine for the flagrant violation of traffic regulations will be made which will not allow a lenient judge to give light punishments. It will also be only a question of time before every state when issuing a state license will require the car owner to give a substantial bond or carry liability insurance for the protection of the public. Hundreds of thousands of automobile owners now carry liability insurance for the protection of themselves, their machines and other automobilists and their machines against property and personal damage resulting from a collision. It is from the irresponsible motor car operator that the public will demand protection through state laws forcing car owners to carry liability insurance or a good bond before

the state will issue a license for the operation of cars on the public highways.

In Maryland and one or two other states there is a law which requires that the owner of a car must have a title or deed of ownership issued by the state at the time the car is licensed; this has been the means of greatly reducing automobile thefts wherever such a law is in force. Another step forward will come when the states require all automobilists to be financially responsible personally or by ample bond should they be at fault in case of an accident, and still another step will be made when penalties of severe jail sentences for violation of the more important traffic regulations are put on the statute books and then vigorously enforced.

This is, we believe, what the public should do about reckless, irresponsible, automobile drivers who maim or kill people and destroy property ruthlessly. The careful automobile driver will welcome such laws, and the "wild" automobile driver must be made to obey them for the safety of himself and the public.

The failure of most states to exercise any direct supervision over the users of motor vehicles, or even to make any effort to determine the fitness of persons driving such vehicles is another important cause of the growing seriousness of the automobile accident problem. This is the conclusion reached in a report by William J. Cox, engineer in charge of traffic accident research, submitted to the National Bureau of Casualty and Surety Underwriters, the rate-making and administering body of the principal stock casualty companies of the country.

Thirty-three of the forty-eight states make no attempt whatever to exercise direct supervision over the great bulk of their highway users, while forty-one states make no attempt to determine the fitness of these citizens to use the highway. Of the seven states remaining, the supervision of motor vehicle operators is of varying stringency so that there are actually only four or five states in the Union which observe the strict degree of supervision which should be the universal rule.

Connecticut, Maryland and Massachusetts have strict supervisory laws on motor vehicles, and operators with this result: Since 1919, automobile registration throughout the country has increased 63 per cent; in these three states it has increased 58 per cent. During this period automobile fatalities throughout the country increased 42 per cent, but in these three states they have actually fallen off 2 per cent. Had this latter percentage obtained throughout the country at large there would have been 9700 automobile deaths in 1922, instead of 14,000. But even Maryland officials are exceedingly lax in punishing reckless drivers or those who operate cars while drunk.

TRAINING DISABLED EX-SERVICE MEN.

PROF. M. W. SMITH, Mechanical Instructor in the University of Florida, referring to recent mention of the fact that the University had ordered fourteen copies of the Blue Book of Southern Progress, writes:

"These books are for my class of disabled ex-service men who are being trained as machinists. Knowing the ground covered by the Blue Book and realizing the book would be of valuable service to them, I conferred with my superior officer, Prof. L. W. Buckholtz relative to buying copies for every member of the class and he readily complied with my request. I sincerely wish that your journal could be read by every farmer and mechanic in the whole South. I do not mention business men for I consider it their duty to read it."

In this connection, Prof. Smith sends an order for seven copies of the Blue Book to be forwarded to personal friends. May we be permitted to say to the thousands of people throughout the South who are familiar with the subject: "Go thou and do likewise."

A WISE MOVE TO NATIONALIZE OUR KNOWLEDGE AND BROADEN OUR THINKING.

Editor Manufacturers Record:

Having read in your valued magazine several articles of recent date, written by different people, relative to the ignorance on the part of many in the northern and western sections of our country as to people and conditions of the South, while well recognizing this fact, I have been interested in your comments thereon and the cause attributed by you to this condition: namely, lack of effort by the Southern people to bring themselves and their advantages to the rest of the country, as in particular California has done.

It may be that we on our part are equally ignorant of the conditions and advantages of North, East and West. This fact was recently brought home to me by a recent trip to the West, middle West and along the Pacific Coast, when for the first time I thoroughly realized the vastness territorially of this country of ours, and the complexity of the interests, facing each geographical section. The year preceding I had covered pretty thoroughly the North and Northeast, so that for the first time I had something of a grasp of the whole situation; and in gaining this viewpoint, I was able to see something of the difficulty and the importance of finding a mutual ground of recognition and sympathetic understanding of the many varying problems that require solution for each section.

It forcibly recalled to my mind a saying many times repeated by my father after the Civil War—that had more men of the South been educated North, and more Northern men educated in the South, this war could never have taken place. I may say that my father was a graduate of Princeton and of the Harvard Law School, during the early fifties.

It also brought back to my mind a prophecy of my Old Professor of Political Science and History at the University of the South—that the time would come when our country would be divided, not into two, but into four nations.

It would seem that this prophecy has been nullified by the material knitting together of the different parts of the country through the railroad arteries and the good roads leading practically everywhere. But unless we can bring about an equal intellectual knitting together, we will not become a homogeneous nation. This can only come about through education: namely, some system of education which will provide for the wider knowledge necessary to bring about the mutual sympathy and understanding that should exist between one part of our country and all the others.

In thinking it over, it has occurred to me that as a beginning toward this end, a mutual exchange of scholarships between the different universities of the country, more especially between Northern, Southern, Eastern and Western universities, would do much toward bringing about that personal contact, and point of sympathetic consideration of the special problems facing each particular section.

The old French saying that, to understand all is to forgive all—in this instance might easily read that, to understand all would be to harmonize all.

I want to say that in a small way this movement has already taken shape. At a meeting this summer, of the associated Alumni of the University of the South (of which a Baltimore man is the president), the following resolution was unanimously adopted: That the board of regents be requested to offer free tuition to one student from every state in the Union. This resolution was also unanimously adopted by the board of trustees and referred to the board of regents with their endorsement.

This resolution unanimously adopted by the Associated Alumni of the University of the South represents residents of practically every state in the Union; therefore carrying with it a nation-wide recognition of the importance of a movement of this kind, based upon an actual knowledge of local conditions as they exist in the different states of the Union.

We felt that the University of the South was peculiarly fitted to inaugurate a movement of this nature, since it has no state affiliation, and has always stood for America and Americanism.

J. SWINTON WHALEY,

Little Fdisto, S. C.,

July 2.

This far-seeing plan of the University of the South deserves the consideration of every other university in the country. We are as a nation still far apart despite all that has been done to wipe out sectional lines. Let the move of the University of the South express the spirit of the whole country and then we shall have gone a long way to destroy the evil spirit of sectional ignorance and prejudice. Every section needs to know every other section.

HOW TO SECURE THE BEST LABOR AND PRODUCE THE BEST RESULTS FOR EMPLOYERS AND EMPLOYEES.

J. B. PORTER, of Kingsport, Tenn., in renewing his subscription to this paper, writes:

"I have been taking the RECORD for quite a while and I find that it is a great friend to the working men and is well worth its price."

Mr. Porter has stated a fact that we would like to have driven home to every other working man in this country.

The MANUFACTURERS RECORD is a friend to the working men. It believes in the payment of the highest possible wages to working men; it believes that high wages are not only a blessing to the working men but a blessing to the country at large. While holding this position it also believes that every working man who is not faithful to his job and does not give the utmost that is in him, in devotion to his work and faithfulness to it, is dishonoring the cause of all working men.

If working men, so-called, had not been taught to dishonor their work, to minimize the extent of it, to lessen say, the number of the bricks that they can lay in an hour or the amount of any other work they do, they would as a class stand very much higher in their own estimation and in the estimation of the world.

No man who does not give the best that is in him to his work can by any possibility count himself as an honest man. To the laboring man, whatever may be the kind of his labor, who gives unstintedly of mind and body to doing the thing for which he is paid there should be given unstinted praise.

But millions of men who labor with their hands have been taught, largely by unwise labor leaders, to curtail the amount of their work and while seeking high wages and short hours do just as little as they can do and hold on to their jobs.

The old illustration often used by this paper of a saw-maker whose saw had won the gold medal at a world exposition is well worth repeating. When the old man, standing by his gold medal saw, was asked how it was that he had wrought such splendid work as to have surpassed all other saw-makers, he described the method then used in making saws and how the saw-maker must press his body against a block of wood which was used in polishing the saws and he said: "I put my utmost power into the making of that saw until I could feel my very life going into it."

No man who does not work in that spirit will ever achieve much, morally or physically, for himself or the world. It is that spirit and that alone which brings success. It is said that when Edison was working on the phonograph there was one sound, essential to his success, which he could not produce, and that he spent on developing it 16 hours a day continuously for six months. Those who know Edison's methods of work can readily believe the statement.

While the position of the MANUFACTURERS RECORD is in favor of the working man as to high wages and as to his methods of work, this paper also holds that it is the bounden duty of every employer whether employing few or many people, to pay them the best wages his business can afford, measured by the Golden Rule of doing unto them as he would have them do unto him if positions were reversed. And then, too, the employer must seek in every way possible to give them the best facilities for working, to give them every sanitary convenience which can protect and safeguard their health, to give them encouragement in securing homes and endeavoring to the best of his ability to see that they have comfortable and sanitary dwellings. This would

prove profitable if viewed only from the selfish point of the employer's prosperity.

Some years ago the writer visited a big plant in Massachusetts where more than a thousand foreigners were employed. The owners of the plant had provided a beautiful library building, to which the employees had free access. The librarian, in talking about the influence of this on the men, told a little story of several Italians who were using one of the tables for card playing. One of the men scratched up the beautiful mahogany table with a ring on his finger. Another one sitting at the table protested against defacing such fine furniture. The man replied, "This furniture is too good for us, anyway, and it does not make any difference if I do scratch it up," and the answer of the second man was, "It would be better instead of destroying the beauty of the table to live up to the table."

The influence of that remark permeated much of the plant, and the men learned after awhile to enjoy the beauty of the furniture, the attractiveness of the library and the facilities which provided them with comfort and pleasure. They learned to "live up" to the table, and the other furniture, and many other men will learn to "live up" to higher conditions when better things are provided for them.

Probably nine-tenths of the men in any shop or on any farm, if given a clean house, comfortably arranged with sanitary conveniences as compared with tumbled down huts in which many now live, would soon learn to "live up" to the new surroundings. They might scratch up the new house and the new furniture, they might ignore its comforts and attractiveness for awhile, but sooner or later the better surroundings would influence their lives and help to quicken them for better work and better living.

The employer, therefore, has as great responsibility resting upon him to do the things which make for the betterment of his employees as is the responsibility of the employees to give their very best work to whatever job they are doing. These are doctrines which must be taught everywhere. They should be discussed in every office and every shop in the country, as well as on the farm. Pre-eminently important is it for Southern employers in factory and farms to develop the very best possible living conditions for their employees. A large proportion of the houses occupied by tenant farmers are not fit for human habitation. They should be torn down or burned down by the owners and homes in which families can be reared in reasonable comfort should be built and maintained, whether the occupant be a negro family or a white family.

The South has a great opportunity, unequaled by that of any other section because of its freedom from the foreign element, to develop the very best that is in its people, to make the working people comfortable and happy by giving them every possible convenience that the situation demands. What an infinite blessing it would be for the South if every employer of labor used as much effort to give good, sanitary homes to his employees as most of the cotton mills in the South are doing!

There is probably no other industry in this or any other country which has made such marked progress in the last quarter of a century in developing the home life of its employees as the cotton mill industry of the South. Every employer of farm or factory labor should from selfish reasons and humanitarian reasons alike, work constantly to better the living conditions of his employees.

In the early days cotton mill employees had miserable homes in which to live. That was the first stage of the industry. Later on, better dwellings were built for them, and moved by humanitarianism as well as by selfish interests, cotton mill owners began what might be called a rivalry in bettering the living conditions of their operatives soon learning that in this way they could secure the best class of families.

With these new and better living conditions came the opportunity for mills which established them to secure their choice of labor. The best labor flocked to the best mill towns. This will prove true in every other industry. If all other industries and farmers would even approximate the work which has been done in this respect by cotton mills, they would have within a comparatively few years the best employees, living under the best conditions, doing the best work of any to be found on the face of the earth.

CHINESE HAIR FOR HAIR CLOTH INDUSTRY.

IN 1922 the United States imported over 1,039,000 pounds of human hair, practically all of which came from China. This is one imported raw material produced by the coolie of China which does not tend to pauperize American workers.

The coarse human hair of the Chinaman's que is woven into a rough fabric half an inch thick. The product is known as "press cloth" and is used almost exclusively in cotton seed oil mills during the pressing process of extracting the oil from the cotton seed.

Four press cloth factories are in the United States, states Wm. Banks in the Charleston News & Observer, writing of the activity of the American Press Cloth Co., of Columbia, which is preparing to operate night and day.

Formerly camels hair and other fibers were used, but it is stated that Frank T. Parker, who became the principal owner of the company, some years ago developed the idea of using human hair.

It is said no other fiber in the world is so suitable for the purpose for which this hair cloth is used and even hair becomes brittle and burns out in a short time. These press cloth mats are subjected to a steam pressure of between 4000 and 4500 pounds when the meat of the cotton seed is put into a press between successive layers of the mats and the oil is expressed through the fiber without losing the meat which becomes caked under the pressure and heat.

HITTING STRAIGHT TO ACCOMPLISH RESULTS.

THERE are some wise people out in Iowa, and some of them are evidently connected with the Iowa Anti-Saloon League for they have recently carried on a publicity campaign entirely unlike anything which has heretofore been put out by that organization. Realizing that the public is not getting the facts which it should have in regard to the effects of Prohibition the Iowa Anti-Saloon League decided upon a campaign of broad advertising through the newspapers. It studied the matter from every angle, and in a recent issue of *Printers' Ink* the story is told of the results which have followed this campaign. Mr. R. N. Holsapple, superintendent of the Anti-Saloon League in Iowa in discussing the subject said:

"If the actual facts could be got over to the people, there would be no further danger of talk of failure. News stories could not be made strong enough to tell these facts with sufficient emphasis to settle the matter once and for all. Pamphlets would not reach all the people, no matter how many of them might be given to church congregations. Paid advertising in large space in newspapers of general circulation was the one clear medium through which we felt we could settle the question.

"Some two months were spent in preparing a campaign. The Anti-Saloon League put the work in the hands of an advertising agency, and a series of eight pieces of copy was laid out to run at weekly intervals. Rather than devote space to tearing down arguments of the 'wets' it was decided before any copy appeared that there was plenty of material for building up a strong, positive case for the success of prohibition. Right at home in Iowa there were facts and figures regarding the closing of inebriate asylums, the increase in bank deposits, the police records of fewer arrests for larceny, abuse of family and disorderly conduct, and a

cleaner political situation. Iowa labor union officials allowed themselves to be quoted, saying that 'the effect of prohibition on the average workingman and his family is good—as evidenced by better health for the man and better food, clothing and general living conditions with an opportunity to get some enjoyment out of life.'

"The campaign has just been completed. It is impossible to gauge its full effect, but it has already brought results far beyond the expectations of the League. One of the first reactions and one least expected was that it brought to the prohibition cause the whole-hearted endorsement of many men prominent in the affairs of the State who were not even thought to be prohibition sympathizers. City and county officials who had at times looked on the work of the League as being more or less of an interference with their duties welcomed the support of this institution.

"The entire result of the campaign, thus far has been to prove once more that there is no better argument in any cause than the plain and simple truth. The ordinary method is to depend on such free publicity as can be obtained. I appreciate the chance of giving stories to the papers when there is actual news in them. I also appreciate the fact that the newspapers are not in the habit of making positive and emphatic statements in such cases, and the result is often that the public gets an entirely wrong impression of the matter in question. By running paid advertising we are not only dealing fairly with the newspapers, but we are able to tell our story in exactly the way we want it told."

CHINA'S COTTON CROP.

A COMMERCIAL cotton crop in China of 2,200,000 bales is in prospect, according to the United States Department of Agriculture. This forecast is 10 per cent more than last year's crop of 2,000,000 bales.

Strenuous efforts are being made in China to promote the further development of the cotton industry in that country, according to Department of Agriculture officials. Rapid development of the cotton manufacturing industry in the last thirty years is also shown. In 1891 there were only two mills with 65,000 spindles. In 1922 there were reported 109 cotton mills with 2,915,000 spindles in operation and being placed, and 13,631 looms.

Considerable variations in the annual estimates of production of Chinese cotton in recent years have been noted by the department, the differences being from three million to six million bales. These differences are said to be due to the fact that much cotton is consumed locally while only the cotton reported as received by mills or exported can be accurately counted.

The consumption of cotton goods in China will for many years probably increase much more rapidly than production in China.

HOW BUSY ARE YOU?

Kirby Lumber Company,

JOHN H. KIRBY, Chairman of the Board.

Houston, Tex., July 2.

Editor Manufacturers Record:

I do not want to put you to the trouble of notifying me hereafter as to when my subscription to the Record expires, so I am enclosing you herewith check for \$50.00 to cover my subscription for so long a period as the money will cover.

JNO. H. KIRBY.

Mr. Kirby is probably one of the busiest men in the United States. He is identified with many great interests in Texas and is president of the Southern Tariff Association. And yet through all of these activities he finds time to keep in the closest touch with whatever the MANUFACTURERS RECORD is publishing. The man who says that he has not time to read might question himself as to why men like Mr. Kirby and Judge Gary, and other equally as busy men can find time to read with the closest interest every issue of the MANUFACTURERS RECORD. Are those who say they cannot find time busier than Judge Gary or Mr. Kirby, or are they failing to utilize their time as wisely as these men are doing?

ELECTRIC POWER OUTPUT OF PUBLIC UTILITY PLANTS.

THE total production of electricity by public utility power plants in 1922 for the entire country was 47,959,004,000 kilowatt hours, of which 17,206,465,000 kilowatt hours, or 36.1 per cent was developed by hydro-electric power.

Public utility plants in the South in 1922 produced 8,640,873,000 kilowatt hours of electric power, of which 2,655,391,000 kilowatt hours, or 30.7 per cent was developed by water power. Alabama, Georgia, North Carolina, South Carolina, Tennessee, and Virginia are the outstanding Southern states in hydro-electric development. States outside of the South leading in hydro-electric power production include Arizona with 72.8 per cent of its public utility electric power developed from water power; California 86.2 per cent; Idaho 99 per cent; Maine 95 per cent; Montana 99.2 per cent; Nevada 98 per cent; Utah 99.9 per cent; Vermont 98.8 per cent; Washington 94 per cent, and New Hampshire 83 per cent.

The Geological Survey's monthly reports from which these figures are taken, on the production of electricity are based on reports received from practically all electric public utility power companies in the United States. The output of central stations, municipal plants, and plants generating electricity for the operation of electric railways and electrified steam railroads, also the portion of the output of a few manufacturing plants that is sold for public use, are included. The output of plants whose monthly production of electricity is less than 10,000 kilowatt hours is not included, as most of these small plants do not have recording meters and are therefore unable to make accurate reports. The combined output of these plants is much less than 1 per cent of the total for the United States.

ANNUAL PRODUCTION OF ELECTRIC POWER BY PUBLIC UTILITY PLANTS BY STATES, IN THE SOUTH, AND TOTAL FOR UNITED STATES IN 1922.

(Compiled from Information Furnished by Division of Power Resources, Geological Survey.)

State	Electricity Produced by Water Power 1922 Kilowatt Hrs.	Per Cent of State Total	Total Production of Electricity 1922 Kilowatt Hrs.
Alabama	353,900,000	53.3	664,404,000
Arkansas	1,649,000	1.3	130,564,000
District of Columbia	...	...	282,366,000
Florida	9,113,000	5.7	160,410,000
Georgia	512,086,000	83.8	611,314,000
Kentucky	100,000	...	314,675,000
Louisiana	...	...	249,829,000
Maryland	2,699,000	.7	394,133,000
Mississippi	...	...	60,159,000
Missouri	29,250,000	3.4	871,026,000
North Carolina	337,868,000	76.3	442,717,000
Oklahoma	1,747,000	.7	265,841,000
South Carolina	814,431,000	93.7	868,768,000
Tennessee	342,322,000	66.8	512,494,000
Texas	3,285,000	.4	816,792,000
Virginia	222,909,000	34.6	643,943,000
West Virginia	24,022,000	1.8	1,351,438,000
Total South	2,655,391,000	30.7	8,640,873,000
Total United States	17,206,465,000	36.1	47,959,004,000

New \$1,000,000 Trust Company for Baltimore.

At a recent meeting of the directors of the National Bank of Baltimore, plans were formulated for the organization of a new trust company to have a combined capital and surplus of \$1,000,000. The new institution will be known as the Emerson Trust Company and will have the same directors as the National Bank of Baltimore, with possibly others. It has leased the basement of the building now being completed at Baltimore and St. Paul streets for the National Bank of Baltimore and will be closely connected with that bank.

Capt. Isaac E. Emerson will become chairman of the board of directors of the Emerson Trust Co. and among its directors will be T. Rowland Thomas, president of the National Bank of Baltimore; Theodore N. Austin, Allan L. Carter, Frank Caughy, J. William Middendorf and others. The company expects to begin business about September 1.

A Nation-Wide Known Banker Warns Against Federal Reserve Methods as Destructive of Liberty.

PAR CLEARANCE IS THE GREED OF BIG CITY BUSINESS INTERESTS TO ROB COUNTRY BANKS.

By A. J. FRAME, Chairman of the Board of the Waukesha National Bank, Waukesha, Wis.

Responding to your request for my views as to the Federal Reserve Banks refusal to handle checks on non-member banks apparently to coerce them into joining the Federal Reserve system, permit me to say:

To my mind the true function of these banks is to prevent the suspension of cash payments by banks generally, through mobilization of a reasonable part of their cash reserves instead of over 1800 millions, now on deposit with them (without interest), to the end that aid directly or indirectly may be vouchsafed to all legitimate interests. As the central reserve cities can easily furnish say 600 millions and still make 20 to 25 millions of dollars annually through their release of former cash reserves, I can see no reason why any country bank should be compelled to join the system.

Further, we cannot concede that forced "par collection of checks" has any standing in court on any grounds of equity or justice. Selling exchange for a reasonable charge for service performed is one of the ordinary functions of legitimate banking, like unto services performed by express companies or by post office orders to transfer money with which to pay customers, not the banks, debts. If post offices and express companies charge for such a service, is not common justice dethroned when the Federal Reserve Banks force country banks to do such business for nothing?

We defy anyone to produce evidence that such confiscatory coercion is practiced in any civilized country.

1st. Banks generally, the world over, are not coerced into subscribing to capital for central banks.

2nd. Neither are they forced to deposit vast sums in central banks.

3rd. Nor are they compelled to transfer colossal sums gratis for others. Foreign bank profits are largely given to stockholders and not confiscated by governments under the absurd guise of a "franchise tax."

By way of comparison—

The enforced deposit in Federal Reserve Banks by members now aggregate say 1800 millions of dollars on which no interest is paid.

All banks in the United States held in 1914 cash 1600 millions of dollars.

The Federal Reserve Banks today hold over 3200 millions of dollars.

Per Contra.

The Bank of England has deposits, (not government) say, 500 millions of dollars.

The Bank of France has deposits (not government), say 400 millions of dollars.

There is no law compelling country banks to pay anybody's freight from coast to coast.

The public statements lately made that a "toll on commerce to the extent of 194 millions of dollars was saved in 1922 through par collection of checks in the United States" seems too absurd for argument, because it assumes that one-tenth of 1 per cent would be charged on 194 billion dollars of transactions in the United States whereas the probabilities are that say 94 billions would go free, because good bank accounts would justify it and cut-throat competition

would compel selling exchange without profit. The balance of 100 millions is thus confiscated from the country banks, largely for the benefit of big interests in the great cities, where greed seems to blind their sense of justice.

No camouflaged argument can escape this truth. To my mind, the serious questions before the American people today seem to be,

Are the ten commandments and the United States Constitution scrapped?

Is liberty dead?

With coffers overflowing with cash not needed, either in peace or war periods, why the Federal Reserve Board did not gracefully accept the United States Supreme Court decree as to the legal rights of non-member banks is beyond comprehension. What a hepful thing it would be for these banks to throw out their arms in a graceful spirit of co-operation to preserve the two best banking systems the world ever knew, instead of adding to all our burdens.

May we not well ask, Are conditions here approaching the days of Thos. Jefferson wherein he exclaimed in criticism of King George "He has erected a multitude of new offices and sent hither swarms of officers to harass our people and eat out their substance?"

Under a continued increase of branch banks, even under the Federal Reserve System, is another Andrew Jackson to arise? History says Andrew Jackson won the Presidency over Clay 219 to 49 in the electoral college on that issue alone. Let us take warning that Nicholas Biddle, President of the old United States Bank in 1832, in his plea for a renewal of the bank charter, threatened Jackson that if he vetoed it that the United States Bank had the power to name Governors of States and even President of the United States, to which Jackson replied, "If the United States Bank has all the power you say it has, then it has more power than anything in a free country ought to have, and by the living eternal, it shall be destroyed." Is the handwriting on the wall?

As an American citizen, who loves liberty, I hang my head in shame.

Fighting for the Right.

The Bank of Wake,

Wake Forest, N. C., June 30.

Editor Manufacturers Record:

Enclosed find some clippings from the recent rulings of the Federal Reserve Board:

1. The Board seems to have repudiated the decision of the Supreme Court of the United States.

2. Their aim and purpose is to destroy or drive out many of the smaller banks regardless of the law.

3. Their methods have been high-handed and domineering, just as stated in their recent ruling, and they expect to continue them.

4. Boycotting or outlawing, is squarely a case of intimidation and in this case premeditated.

5. It's a "bad day" when those representing our Government wilfully refuse to obey the law and continue to violate the spirit of our Constitution daily.

I am glad to see the MANUFACTURERS RECORD defend the rights of the smaller banks and hope you will continue to do so.

T. E. HOLDING, Cashier.

Warfare Against State Banks Continues—Federal Reserve Board and Banks Defy Supreme Court of the United States.

By CHARLES DE B. CLAIBORNE, Vice-President Whitney Central National Bank, New Orleans; Chairman Committee on Exchange, American Bankers Association, and President National and State Bankers Protective Association.

The contemptuous and open defiance of our Federal Reserve Banking System to the judgment of the Supreme Court of the United States presents not only a shocking but alarming condition. Far worse than Bolshevism or Ku-Kluxism is the secession of this invisible empire from the effects and mandates of the highest tribunal of the land. Slaves, yea, worse—cowards are the bankers of this country if they do not rise up against this most astounding ruling of the Federal Reserve Board, which is not only a clear reprisal against non-remitting banks but is also an illegal interference with the business of the member banks!

"Amendments to Regulation J, Series of 1920: June 29, 1923.

"(6) No Federal Reserve Bank shall receive on deposit or for collection any check drawn on a non-member bank which refuses to remit at par in acceptable funds.

"(7) Whenever a Federal Reserve Bank receives on deposit or for collection a check drawn by, endorsed by or emanating from any non-member bank which refuses to remit at par in acceptable funds, it shall make a charge for the service of collecting such check, not to exceed one-tenth of one per cent."

The Federal Reserve Act may, or may not, have had the right to conscript into the Federal Reserve System the national banks of the country, conscripting millions for capital and hundreds of millions of deposits, but there is no shadow of doubt, and never was, that the state banks are free from the tentacles of that System—and the Supreme Court of the United States has made this doubly plain in the recent ruling of the North Carolina case.

"In the absence of some legislation penalizing banks which would not remit at par," said Mr. Harding, former Governor of the Federal Reserve Board—born with the idea that the Federal Reserve is a super-institution with superior privileges, and carried away with their lust for control and power over state institutions, that governmental agency complains that Congress did not violate the sovereignty of the states, go beyond the Constitution of the United States, to assist them by some sort of compulsion to do that which our highest tribunal has said they have no right to do.

The Supreme Court of the United States on two separate occasions has maintained our contentions—State institutions are beyond the control of Congress—and universal par clearance not intended by Federal Reserve Act. The District Court of Oregon (San Francisco case) said "The testimony here impels me to the conclusion that the Federal Reserve Bank has gone to the length of endeavoring to coerce the Brookings Bank to accede to its demand that the latter Bank agrees to remit at par. Its purpose is obvious, etc."

In the Kentucky case the Federal Reserve Bank was also found guilty by the Federal Court. Thus, we find that in four important litigated cases, both as to questions of fact and law, the contentions of the Federal Reserve System were denied; only in one case known as the Atlanta case were they at all successful—a victory in form but not in substance, and this was due to a "death-bed repentance" and promise on the part of the Federal Reserve of Atlanta "not to demand the cash over the counter and to accept exchange drafts." I say death-bed because prior to the filing of this disclaimer, the banks had been repeatedly notified that if they did not remit at par, cash would be demanded over the counter.

There is nothing in this country's history with which to compare this obstinate, stubborn, thrice declared illegal at-

tempt to force non-member banks to yield to par remittance. The Czar of Russia—the Kaiser of Germany—never with such persistence ever defied constituted authority.

The question, *vel non*, of universal par clearance, sinks into insignificance as compared to the question of State sovereignty over their State institutions and the greater question of submission to constituted authority. Law-abiding citizens have but one arbiter of their laws, the judiciary. If these are "mere scraps of paper," well may we tremble at constitutional government!

The mask must be torn from the real authors of the nationwide propaganda which refuses to tolerate the disclosure of judicially declared illegal acts on the part of this gigantic central Bank. WHY HAS THERE BEEN NO APPEAL FROM THE CALIFORNIA CASE? WHY NO APPEAL IN THE KENTUCKY CASE, in both of which those Federal Reserve Banks stand convicted? Let the Federal Reserve answer.

The very life of the state banking system of the United States, and even the independence of the most successful banking system in the world, our national banks, are in jeopardy. With all of the facts before us, do we need a committee from Congress to investigate why the banks have not joined this Federal System? With 32,000 banks in the country, about 10,000 are members—and of that 10,000, 8000 are national banks and without any option, or without the vote of their stockholders, were legislated in.

The last hope of reconciliation has vanished. State banks cannot any longer lie supinely upon their backs until their hands and feet are tied. Never truer than now were the words of the great patriot when he said,

"Give me Liberty—or give me Death."

Shall we have a state bank system or surrender to the Federal Reserve? Think for yourself.

For the Safety of State Banks.

Bank of Millington,

Millington, Tenn., June 28.

Editor Manufacturers Record:

There is so much good reading in your issue of June 21, I wish every state bank in the United States had, not only that copy, but a year's subscription to your interesting publication.

Your noble and logical fight for the vested rights of the banks has been founded on reason and, of course, your contentions have been duly sustained by the court of last resort.

Might does not make right, and a service performed is due some compensation; centralizers and combinations to the contrary notwithstanding.

There is more free doing in a country bank than one can imagine until he has worked in such a bank. We are largely interested in farming and the problems of the farmer, and it is our candid opinion that it is not a matter of more money and cheaper money, but a system whereby he can realize a profit from his products, which will enable him to pay what he owes and borrow more if he should need it.

This prosperity in the cities, to continue, must of necessity permeate the agricultural districts where the foundations and source of all wealth arise.

I send you herein my check for a year's subscription to the MANUFACTURERS RECORD to be sent to Librarian, Millington Central High School, Millington, Tenn.

N. L. FLOENOY, President.

New Par Clearance Regulations of the Federal Reserve Board.

By ALEXANDER W. SMITH, General Counsel National and State Bankers Protective Association.

A part of the recent amendment of Regulation J, series of 1920, promulgated by the Federal Reserve Board undertakes to place the "bar sinister" on all checks *drawn on any member bank* that may in the course of ordinary commercial transactions pass into the possession of any non-member bank, and thereby brand such checks as *persona non grata* with Federal Reserve banks, and impose upon them an arbitrary collection charge that does not apply to a check *drawn by the same depositor upon the same member bank* that does not happen to float into the hands of a non-member bank.

Can this be done consistently with the provisions of the Federal Reserve Act? If not, we must assume that the Federal Reserve Board upon having their attention called to it will promptly modify this regulation in accordance with their vociferously asserted and oft-repeated desire to comply with the law of their creation. This apparently earnest and hysterically expressed desire has been advanced as an excuse for the coercive measures heretofore adopted to compel non-member banks to waive their legal right to charge exchange and give their services to the Federal Reserve System without charge, and without recompense, in promotion of the now exploded plan of establishing universal par clearance. Whether this desire was genuine at the time it was expressed or not, the body of men that have been honored with the high and powerful office of membership on the Federal Reserve Board cannot afford to so act now as to demonstrate that this desire was not sincere.

The only source of power conferred by the Federal Reserve Act upon the Federal Reserve Board to deal with collection charges is found in Section 16 which stands today as originally enacted. That section authorizes the Federal Reserve Board to prescribe rules fixing the charges to be collected by member banks from their patrons upon checks of such patrons that are cleared through a Federal Reserve Bank. This must mean checks drawn against deposits of these patrons of the member banks. It cannot be said that a check, which is negotiable by endorsement and delivery, that is drawn upon a member bank and duly endorsed over to another member bank, even though one or more of the mediate or intermediate endorsers happen to be non-member banks, remains the check of the non-member bank after its endorsement and delivery. By operation of law, such a check becomes the property of the endorsee, and its character as related to the Federal Reserve System depends solely and alone upon the relation to that system of the bank upon which it is drawn. Each endorsement is a separate contract and none such affects the place and conditions of final payment.

Although clothed with authority to fix a charge which member banks ought, in equity and good conscience, to be allowed to make in case their service is not compensated by other considerations, the Federal Reserve Board has consistently declined to allow any member bank to make any charge for remittance covering any check drawn upon itself. The present regulation does not modify the general rule requiring member banks to remit proceeds of checks drawn upon themselves without charge, but engrafts an exception thereon that a Federal Reserve Bank shall charge a *member bank* in case the check involved has in the course of its history been "contaminated" by passing through the hands of a non-member bank. It is respectfully submitted that this is a prostitution of the power conferred upon the Federal Reserve Board with respect to remittance charges, and is an effort to

penalize its own members without any fault on their part merely because without their knowledge, consent or control, a particular check may in the infinite ramifications of the use of checks, stray into the hands of a non-member bank.

The alleged excuse for this attempt at arbitrary exercise of the power of regulating remittance charges is that the non-member bank would otherwise obtain the benefits of the par collection system of the Federal Reserve Banks without compensation. This excuse has no foundation in fact. The service of collecting a check drawn on a member bank and deposited in a Federal Reserve Bank *by another member bank* is a service to the depositing bank and to no one else. It is a service, of which the Federal Reserve Board has boasted in every publication issued by it, that is rendered to commerce in that it makes a check drawn on a member bank "travel without baggage," so to speak, and be payable at one hundred cents on the dollar anywhere in the United States. It would not be pertinent here to argue that such a boast never had any foundation in fact, because no check on a member bank that required one or more days time to collect ever has been available at one hundred cents on the dollar in Federal Reserve banks because all such checks carry a charge covering the use of the money for the time required to realize it upon the face of the check.

Under the present regulation, not only will this interest on the float be deducted from the check, but it will be further burdened with the customary remittance charge of ten cents on the hundred dollars merely because it has happened to float into the hands of a non-member bank. The course of a check from its birth to its death is uncontrollable by the drawee bank. The very object and purpose of a check is to pass current in the stream of commerce. No possible regulation can control its course from the time of its issuance to the time of its payment. Its course is directed not by banking regulations but by the exigencies of the private business in which it is employed. To require a remittance charge on such a check is wholly inconsistent with the general regulation that all member banks must remit for all checks drawn upon them without charge for remittance. To be consistent, the Board should authorize its member banks to make remittance charges on all their checks collected through the mails. The recent decision expressly confirms this right in member banks.

The result of this discriminatory regulation is as much warfare on non-member banks as was the practice of presentation at the counter for payment in cash, which has already received the final condemnation of the Supreme Court of the United States. An effort to enforce it is an undisguised purpose to evade the ruling of the Supreme Court. If any comparison is to be drawn it is more reprehensible than the former methods of warfare that have been finally condemned.

The inconsistency of the regulation is no less glaring when applied to that part of the law which authorizes the Federal Reserve Board to regulate the charge which may be imposed by Reserve Banks for the service of clearing and collection. Inasmuch as the regulations already provide that there should be no charge by any member bank for remittance covering checks drawn upon itself and forwarded for collection by the Federal Reserve Bank, there is no basis for the Federal Reserve Bank to make a charge covering the service thus rendered to it without cost. Its deferred credit system automatically charges its depositor for the use of the money during the interval between deposit and receipt of proceeds, and

in case the reserve deposit is below the minimum this charge is increased two per cent above the prevailing discount rate. Since its general rule forbidding remittance charges between member banks has necessitated an organization to clear these checks, it is impossible to calculate any additional charge occasioned by the collection of a check that has passed through a non-member bank. It is as illogical to place this discriminatory and arbitrary charge on a check that has thus been contaminated by the touch of a non-member bank as it would be to discriminate between checks between member banks drawn on blue paper and like checks drawn on gray paper. In other words there is no logical reason for making the charge save and except the desire to punish the non-member banks over the shoulders of the member banks because, forsooth, the non-member banks have had the courage to insist upon the protection of their rights under the law and have vindicated those rights by the decision of the highest court in the world.

At last the Federal Reserve Board is out in the open and it is most important that the people at large should be advised of their position. At last it has been demonstrated that the entire claim of the Federal Reserve Board of the advantages of par clearance is a mere cloak for forcing into the Federal Reserve banks the deposit of all the banking reserves of all the non-member State banks. It was openly admitted in the argument of counsel for the Federal Reserve Bank of Richmond in the Supreme Court when he said:

"This particular controversy is the concluding act we might say, in a long controversy on the subject of state or national control of the banking system of the United States."

The decisions of the Supreme Court rendered on June 11 nullify this prophecy of learned counsel. It is not only not the concluding act in this controversy, but it is a declaration of mutual independence of the state banks and the national banks. In its last analysis, the doctrine laid down by the Supreme Court in these cases is of incalculable national benefit. It puts a curb upon the tendency to concentrate all power in the national government to the injury of the state governments and the institutions of their creation. Strange to say, this tendency to concentration in national government was advanced by counsel for the Federal Reserve banks as a reason for deciding the case against the country banks, counsel saying:

"It has taken one hundred years of the decisions of this court to establish control over interstate commerce, and the financial system is an essential element of that controversy; and this controversy is the culmination of the development of that control for more than one hundred years. * * * The general interest of the country required the establishment of a national control over the important agencies of commerce, of which the banking system constitutes a part, to the end that this country may be equal to the emergencies of the present and may expand to meet the commercial needs of the future."

This is a surprising statement in the light of history which discloses that there has never been a day since the foundation of this government when the state banking institutions did not have more banking power; were not more widely distributed, and did not perform more useful services to the common citizen of the United States than the national banking systems have ever performed.

The country has so recently experienced the power of the control over the money of the United States as exercised through the Federal Reserve System as to have vividly in mind the possible consequences of the unrestrained extension of this power. If it is successful, the entire object and purpose of dividing the Federal Reserve System into twelve districts will have been completely defeated. Indeed, that object and purpose is said to have been in the minds of the financial experts who controlled the judgment of Congress in passing the Federal Reserve Act. They frankly admitted their preference for a single Reserve Bank located at the

seat of government as contemplated by the original Aldrich plan, but they consoled themselves with the reflection that the objection to the twelve units could be overcome in an administrative way if the Federal Reserve Board was given powers large enough to overcome the decentralization. Their only fear seemed to be that in the future we might get the wrong kind of men into the Federal Reserve Board who would be so unwise as to follow the policy of Congress in creating twelve districts for the express purpose of decentralization. But until that happened it was anticipated that the personnel of the Board was sufficient safeguard against decentralization, and that by appropriate administrative methods the desirable features of the Aldrich bill so far as centralization and control were concerned, might be continued.

The present regulation is one of these administrative measures having for its purpose the destruction of decentralization that Congress so earnestly sought to perpetuate. It is high time that the public at large, and especially that part of the public (constituting the majority in numbers of the common people of the United States) who suffered the agonies of deflation in 1920, should come to a clear understanding of the present movement and communicate that understanding to their representatives in Congress.

Pennsylvania Bankers Oppose Branch Banking.

RESOLVED, By the Pennsylvania Bankers Association in 1923 Convention assembled, that we view with alarm the establishment of branch banks in the United States and the attempt to permit and legalize branch banking in our State, that we hereby express our disapproval of and opposition to House Bill No. 1330 and Senate Bill No. 631, introduced at the current session of our Legislature, or to any other legislation that may be proposed embodying the principles of branch banking, and

RESOLVED, That we regard branch banking as antagonistic to basic American principles and potent with harm, not only to banking interests but to the welfare of business generally, and

RESOLVED, That we favor the perpetuation of the time-honored American system of locally owned and locally operated, individual banks.

In discussing the branch bank question at this convention, Mr. M. A. Kendall, vice-president of the Farmers Deposit National Bank of Pittsburgh, which has assets of about \$50,000,000, said:

"Let me explain, that my interest in this matter is of a general character only.

"The bank with which I am connected, being a National bank, recognized no legal right to start a branch, it has no desire or disposition to start a branch and so far as it is personally concerned, it is not worrying for a minute about any branch that anybody else might start.

"But I am opposed to branch banking on general principles, and as always ready to give a reason for the faith that is in me; therefore, I speak.

"I find no justification whatever for the legislation on this subject which has been introduced and is still pending at Harrisburg. The reason or rather the excuse given for this action was the claim that since national banks now had the right to establish branches, it should be given to the state banks in order to place them on an equal footing. But national banks have no such right. Yes, I am aware that some months ago, a Comptroller of the Currency had a brain storm and imagined he saw a hole in a stone wall big enough to put his arm through and whip the devil around the stump and in that way give a few fellows what they had been clamoring for, but unfortunately for him, he is like the balance of us in one respect, he is not bigger than the law. The courts are now checking him up and he is hearing from them just as fast as they can hand their decisions down.

"But what's back of this proposition? The farmers have

gone on record against it. The Federation of Labor is against it, about nine bankers out of every ten, whom I have consulted, are against it and the general sentiment throughout the state has always been against it. This is no new question. It is as old as our Government and it may be news to some of you that Andrew Jackson, rabid Democrat that he was, carried the State of Pennsylvania three times on this same issue, and in all kindness I want to suggest to any of my friends who may have political aspirations, that this branch bank business would not be a very strong platform to run for office on.

"But the fact that public sentiment is against it, need not necessarily condemn it. Public sentiment is sometimes wrong or prejudiced and needs to be educated and enlightened. Now let us look into this matter and see if there are any good grounds or reasons why the public should feel the way it does concerning the matter.

"My first comment is that big banks and strong banks are not always synonymous terms; indeed it not infrequently occurs that they do not mean the same thing at all. You have all doubtless observed that no matter how fast the resources and assets of a bank pile up on one end of the scale, the liabilities pile up just as fast on the other end. Big banks have big liabilities and small banks small liabilities, and some of the strongest banks in the State of Pennsylvania are comparatively small institutions and the records show that in proportion to their number, the big banks fail just as often as the little ones, the difference is that when a little bank fails you have an embarrassing local situation and when the big bank fails you have a tragedy.

"But let us look a little further and see whether this proposition means more security or less. Outside of the ability, energy and honesty of the management, the only security a depositor has, is the capital, surplus and undivided profits of the bank and the percentage of his security is the ratio which these bear to the deposits. But here is a scheme to increase the deposits without making a proportionate increase in the capital and surplus. As matters stand today, you have one bank, with one capital and surplus balancing its deposits. Now let that bank start ten branches and you have one capital and surplus balancing the deposits of eleven banks and the depositors' security has been diluted to that extent.

"I did a little figuring the other day in order to find out what the relative security was as between the individual banks and the chain banks.

"I first took the national banks in our city and I found that the margin of security which our depositors had was 17 per cent and I thought that was pretty good and said to myself, I guess our state banks won't show up that well, but to my surprise, I found that they beat us one per cent. Then I tried the trust companies and they figured out 34 per cent. But it occurred to me that somebody might say, that's not a fair test on the trust companies, because you have one concern there with an abnormal surplus, so I eliminated that concern, took its capital and surplus out of one side and its deposits out of the other. Then I found to my surprise that the result was 36 per cent, and the state at large outside of Philadelphia and Pittsburgh, including all kinds of banks, showed between 19 and 20 per cent.

"In 1904 the capital and surplus of all the banks in Canada was \$79,000,000 and the total assets amounted to \$694,000,000, giving the depositors a margin of 11 per cent. Since then, the branch bank business has had full swing and in 1920 the total capital and surplus was \$128,460,000 and the total assets were \$2,926,867,000, giving a margin of security of only 4 per cent.

"Now there are your two systems. Set one over against the other and I should think that so far as the depositor and the general public is concerned, further comment would be unnecessary.

"But I am not done yet. I have been talking to you about tangible things, but the most valuable things in the world are and always have been intangible. The State of Pennsylvania does not realize how much it owes to that faithful, loyal, honest, intelligent army of business men and professional men and farmers which make up the boards of directors of our 1800 banking institutions. The service they are rendering to the public cannot be stated in terms of dollars and cents, it is simply beyond computation. To have had the privilege of meeting and mingling with these men fully compensates me for all the hard grinding grueling years I put in as a bank examiner, first in the state and later in the national work.

"I think the most pleasing experiences of all were the ones

I had away out in the rural districts, in the villages and cross-road towns. It was an amazing thing to me to note the interest and loyalty and the pride which those people would manifest toward their little banks. Again, and again, and again, I have found old farmers with uncounted thousands tied up in their land and buildings and live stock and grain fields, and only \$500—just enough to entitle them to a place on the board—invested in the village bank, but the bank was getting their first thought and consideration. Let a call come up from the bank, and the plow would stand still in the furrow and the new mown hay would take its chances with the approaching storm and everything else would wait until the bank was served. It was never any trouble for the examiner to meet the board of directors. He couldn't help meeting them for they would all drop everything else and come to town when they heard he was there. I remember how they used to fish for compliments. Some old fellows would slide up to the examiner and say—'We're kind 'o proud of our little institution here. Of course, we was all green at first and we made some mistakes, and got some bad paper, but we've got it all charged off and we're going pretty good now.' And nothing would warm the heart of the examiner more than to be able to say—'You have a right to be proud of it. It's a fine little institution, you're building a monument here which will honor your memory when you're gone.' And so they would rally round their little bank and by and by there would radiate out from it, influence that would set the wheels of industry in motion and a real town would be put on the map.

"And clear up the line the same spirit would be manifested, although perhaps in a little different way. Is there a man in your town too big or too busy to be flattered if you should offer him a place on your board of directors? If so, I am afraid there is something wrong with your bank. Suppose some day you button-hole that fellow and take him to your inside office and say to him—'We've had our eyes on you for some time, we want you with us; we're going to make a place on our board for you.' And then in an effort to appear unconcerned he will say—'Well you know I am pretty busy and I may not be able to give you much time, but if you decide to do that, you will never lose anything by it.' And you won't either, he'll give you the very best there is in him. And so on up the line to the millionaire with his diversified interests, clamoring for attention and only just enough stock in the bank to qualify as a director. Yet with unflinching interest, once every week or once every day, if necessary, he'll drop everything else and find his way to that directors' room.

"Now men, I want to say to you in all seriousness and with all the earnestness I can command, that in my judgment any movement that hints or even squints at the breaking down, the disbanding, the demobilizing of this magnificent army of public servants is a crime.

"A friend of mine, who is in favor of branch banking, said to me the other day—'Now there's no reason why you should get het up over this thing, nobody is proposing to pull down the independent banking system in Pennsylvania. All we want is a law that will permit us to put in a few branches around in the suburbs of the large cities and maybe one or two in the big towns.' Will you walk into my parlor, said the spider to the fly? We know the history of this thing, we know what has always happened when this system gets a foot-hold in a country. Just as debased currency will always drive the good money out of circulation, so will this system of banking undermine and destroy the independent banks.

"There is a principle involved here. This thing is either right or it's wrong. If it's right, why restrict it? Why limit it? Why not let down the bars and open the flood gates and let it inundate the whole country? If it's a good thing give everybody a chance at it. But if it is a bad thing, the time to stop it is before it starts.

"During that hearing we had in Harrisburg some days ago, a young man from Philadelphia was making a speech in favor of branch banking, during which he inquired if any of us had ever heard of any serious trouble caused by the failure of a bank with branches. I understood, of course, he was asking that question for effect and not for information; it was simply a part of his speech and I didn't want to butt in and spoil his speech, for he was doing very well considering what he had to work with. But if he is present in the audience today, I will take a moment to enlighten him.

"During the last eighteen years, six out of thirty-five banks in Canada have failed and two of them were big banks with many branches. The Ontario Bank of Canada had 24 branches and the Sovereign Bank of Canada had 43 branches.

The American Encyclopedia for 1893 says of Australia: 'Out of 28 banks with 1700 branches, 13 of them, with between 800 and 900 branches, failed in six months for ninety million pounds. The latest big failure in England was in December, 1920, when the Farrows Bank of London, with 75 branches, failed with estimated losses to depositors of fourteen million dollars.'

"They tell me I'm a back number. Some people are painfully lacking in information, because they have never read the back numbers. They tell me I'm not progressive. My reply is that there is a lot of difference between movement and progress. Some people think they are progressing simply because they are moving, regardless of the fact that they are moving backwards.

"They tell me that banking is simply a cold-blooded business proposition; that there's no such thing as sentiment or romance or personal friendship or personal interest in it any more. Well, I thank the Lord it hasn't reached that stage in Western Pennsylvania yet and if it ever does, some of us are going to get out of the business."

As the Newspapers View the "Reprisals."

The way in which many newspapers are handling the recent acts of the Federal Reserve Board as a "reprisal" against state banks—a very dangerous performance for any big financial interests to engage in—is as follows:

[Norfolk Virginia Pilot]

The Reserve Board Hits Back.

"Barred by the Supreme Court's decision from imposing the par collection system on non-member banks against their will, the Federal Reserve Board has decided on a new arrangement which will prevent institutions not subscribing to the system from enjoying its benefits."

Who gave to the Federal Reserve Board the right to seek to circumvent the decision of the Supreme Court? That is a rather dangerous performance in this country.

(Atlanta Constitution)

RESERVE BOARD ORDERS SYSTEM OF REPRISALS

Federal Banks Prohibited From Receiving Checks Drawn on Banks Charging Collection Fee.

[Charlotte N. C. Observer]

The Retaliatory Policy.

"The policy of retaliation which The Observer anticipated on the part of the Federal Reserve System on account of the North Carolina victory in the par clearance matter, developed without any undue loss of time. Instructions to member banks require refusal of checks for deposit or for collection of checks demanding a fee for the handling. Member banks must make a collection charge not exceeding one-tenth of one per cent on all checks of non-member banks refusing to remit at par. The Federal Reserve claims that the par collection plan has become a necessary instrumentality in effecting exchanges. The outcome of the matter, therefore, is a practical boycott of non-member bank business, and undoubtedly the Federal Reserve Board has the right to insist that non-member banks cannot participate in the benefits of the system without contributing their proportionate share of the expense. Nevertheless, The Observer had hoped the spirit of retaliation would not prevail and that the Federal Reserve Board would be broad enough to admit defeat and invite the successful small banks to come into the benefits of the system on the same basis of the member banks, to strengthening of the banking fabric of the Nation. As it is, it of the system on the same basis of the member banks, to the

perpetuation of the prejudice against the Federal Reserve Board."

A financial oligarchy blocked in one way by the United States Supreme Court seeks to destroy independent banking by what the Charlotte Observer calls "The Retaliatory Policy." This is merely pouring oil on the fire which is liable to develop into a conflagration, dangerous to the whole country. This policy furnishes limitless fuel to the Henry Ford presidential machine and he must indeed be blind or brainless who does not see it, and who fails to realize the menace in that situation to our whole financial system.

Negro Migration Solution Declared to Rest With Whites.

Atlanta, Ga., July 5—[Special]—Declaring that the negro, as a race, does not desire to leave the South, and asserting that the remedy for the conditions causing his migration to other parts of the country is in the hands of the white man, a state-wide conference of colored leaders meeting here today issued a statement to the state legislature calling attention to some of the reasons for the present situation and asking that steps be taken to keep colored laborers on the farms and in the factories of the South.

Among the causes given for the present migration are:

Lack of credit facilities for negro farmers.

Low wages for farm labor.

Poor housing conditions, both in the cities and rural districts.

Bad working conditions on plantations managed by overseers in the absence of the owners.

Lack of educational facilities for negro children.

Poor accommodations for negroes while travelling.

Inequality in the enforcement of the laws.

An unfair labor contract law, the repeal of which is asked.

Mob violence.

In connection with educational facilities, it was pointed out that of the \$750,000 spent by the state of Georgia for higher education, only \$15,000 had gone to negro institutions during the past year.

The legislature was urged to enact an anti-lynching law, leading negroes preferring to have it come as a state enactment rather than as a federal law.

More than 500 colored people and leaders from all over the state attended the meeting, and the petition to the state legislature bore the signatures of many colored leaders.

American Electrochemical Society Meeting.

The fall meeting of the American Electrochemical Society will be held at Dayton, Ohio, on September 27, 28 and 29, with headquarters at the Miami Hotel. The Chairman of the Technical Meeting will be Mr. Duncan MacRae of the Research Department of the Westinghouse Electric & Manufacturing Company. It will be devoted to a symposia on "Electrochemistry of Gaseous Conductions." Mr. F. R. Pyne of the U. S. Metals Refining Co., Carteret, N. J., will serve as Chairman of the symposia covering "Recent Developments in Electrolytic Refining of Metals."

There will be a round table discussion on subjects of interest to the membership. Excursion trips are contemplated to industrial plants and places of interest.

Complete information on the meetings can be secured from Dr. Colin G. Fink, Secretary of the American Electrochemical Society, Columbia University, N. Y.

The town of Senatobia, Miss. will open bids on July 16 for furnishing material and constructing 12,000 lineal feet of combined concrete curb and gutter and 18,000 square yards of gravel surfacing with minor drainage facilities. Plans, and specifications are at the office of Harper Johnson, town clerk.

The Remarkable Development of Our Dye Industry.

AMERICAN ENTERPRISE, CAPITAL AND CHEMICAL SKILL HAVE MADE US INDEPENDENT OF ALL THE REST OF THE WORLD.

The creation of a great dye industry so essential to our prosperity in peace and to our safety in time of war as shown by the United States Tariff Commission in a report just issued is of national importance to the highest degree.

During the year 1922 the domestic dye and organic chemical industry made notable progress. Many products were manufactured for the first time in this country and there were large increases in the quantity of production with conspicuous reductions in prices.

The domestic production of dyes in 1922 by 87 firms was 64,632,187 pounds, an increase of 66 per cent over that of 1921. The sales for 1922 totaled 69,107,105 pounds valued at \$41,463,790. The size of the industry in 1922 is in sharp contrast with that of 1914 when only 7 firms manufactured a total of 6,619,729 pounds valued at \$2,470,096. The dye industry in that period was in no sense a self-contained one, as the dyes produced were made almost entirely of intermediates imported chiefly from Germany. The increase in dye production during 1922 was largely due to an increase in general business activity. Beginning about June the textile and other dye-consuming industries became more active after the business depression and during the remaining months of the year the demand for dyes steadily increased.

The average sales price of all domestic dyes for 1922 was 60 cents per pound compared with 83 cents in 1921 and \$1.26 per pound in 1917. The 1922 figures represent a 28 per cent decline from that of 1921. There were price reductions for both the bulk colors and dyes consumed in smaller quantities.

One of the conspicuous developments of the year 1922 was the increased production of vat and alizarin dyes. The vat dyes are used in cotton dyeing and printing for the production of shades of remarkable fastness which are not destroyed by the modern laundry treatment. These colors are of great complexity and have presented serious difficulties in their commercial production. Their use is on the increase, as the public is beginning to recognize that fast shades are obtainable on cotton goods. The alizarin dyes are of great value in wool dyeing and the addition to this field of new dyes and the increased production of other dyes is a significant step in the development of a self-contained dye industry. The total production of vat dyes (not including indigo) was 1,075,992 pounds in 1922, compared with 345,152 pounds in 1921. The production of the anthraquinone dyes which includes alizarin dyes and a large part of the vat dyes, was 1,234,963 pounds.

Many important dyes were produced for the first time on a commercial scale in 1922. These comprise colors of great value for the dyeing of either silk, cotton, or wool, such as vat dyes, alizarin, developed cotton dyes, mordant and acid dyes. The increased production of these colors is reflected in a reduction of these imports. The production of these dyes in the United States has resulted only after large expenditures on research and most painstaking investigations. There are still gaps in our manufacturing program which should be filled to make a self-contained dye industry. These comprise certain of the vat dyes, together with certain of the mordant, acid and direct dyes.

The satisfactory quality and the uniform standardization of the American dyes is one of the striking evidences of the commendable progress made by the industry. Dye for dye, with relatively few exceptions, the domestic products are found equal to the pre-war German dyes. In the early stages of the domestic dye industry, after the outbreak of the Great War, many of our dyes were lacking in uniformity of strength and quality. This condition, however, no longer prevails as

our domestic manufacturers are marketing dyes which are uniformly standardized as to strength and quality. Statements of the largest, silk and woolen manufacturers and also from cotton printers and dyers agree as to the satisfactory results obtained from American dyes.

The United States produces about 93.5 per cent of the dyes actually consumed. The imports of dyes in 1922 totaled 2,982,631 pounds, the production was 64,632,187 pounds, and the exports totaled 6,956,593 pounds. Consumption is assumed to equal production, plus imports, minus exports, or 61,658,225 pounds. The imports in 1922 were 6.2 per cent of our total production and 6.5 per cent of our consumption. In 1914 the imports were nearly 90 per cent of our consumption.

Production of dyes in 1922 grouped by classes according to their method of application on fibers were as follows:

	Pounds
Acid	9,880,014
Basic dyes	2,937,585
Direct cotton dyes	11,931,737
Lake and spirit-soluble dyes	1,009,512
Mordant and chrome dyes	3,749,701
Sulfur dyes	16,913,767
Vat dyes (not including indigo)	1,075,992
Indigo	15,856,752
Unclassified dyes	1,283,127

Total imports of dyes during the calendar year 1922 were 3,982,631 pounds valued at \$5,243,258 compared with 4,252,911 pounds for 1921 and 45,950,895 pounds during 1914. Of the total imports for 1922, 44.58 per cent came from Germany; 43.72 per cent from Switzerland; 5.25 per cent from England; 4.18 per cent from Italy, and 2.27 per cent from all other countries. The 1922 figures show a decline of dye imports from Germany, since during the year 1921, 48.34 per cent came from Germany; in 1920, 51 per cent. The dyes imported represent for the most part dyes that are not manufactured in this country or not manufactured in an adequate quantity for domestic requirements. Vat dyes led in quantity of imports totaling 1,549,024 pounds (single strength); mordant and chrome dyes totaled 716,790 pounds, direct cotton dyes, 671,621 pounds; acid dyes, 601,395 pounds; sulfur dyes, 194,883 pounds; basic dyes, 155,084 pounds and spirit-soluble dyes and color lakes, 76,853 pounds.

The coal-tar dye and chemical industry has expended over \$21,000,000 during the last five years, 1917-1922. In probably no other field have there been such extensive investigations as in the manufacture of dyes. The accomplishments of that period and the progress and development of the dye industry may be attributed in no small part to the enormous expenditures in research. New dyes and other chemicals of great economic value have been developed and the costs of production have been reduced as is revealed in the conspicuous reduction in the prices of dyes.

The exports of dyes for 1922 show a large decrease from that of 1921 receding from \$6,270,155 in 1921 to \$3,023,127 in 1922. The 1922 figure is a 90 per cent decline from that of 1920 when exports reached the maximum value of \$29,823,591. The large export during 1920 was during the boom year before German dyes made their appearance in the large dye markets of the world. Official imports of China, India, and Japan show that large quantities of German dyes were exported to these countries after 1920 and in addition Swiss, French and British dyes have been notable factors in the Far East markets.

Exports of dyes for the first four months of 1923 show an increase in value and quantity. This increased demand for American dyes, largely by the Far East markets, may be attributed in part to the reduced imports of German dyes on account of the occupation of the Ruhr by the French in 1923.

\$10,000,000 WATERPOWER DEVELOPMENT PROJECTED NEAR ASHEVILLE.

Enterprise Calls for 60-Mile Lake With Area of 26,000 Acres Formed by 150-Foot Dam—Increase Potential Development from 100,000 to 265,000 Horse Power.

Asheville, N. C., July 7.—[Special.]—Waterpower development on a vast scale and the creation of navigation in the mountain section of Western North Carolina at a cost of \$10,000,000 are involved in an ambitious project in the vicinity of Asheville. Government cooperation has been asked for in the form of a survey which is to be made by United States Army engineers, starting October 1 and requiring a year's work on the part of a force of 20 men.

The enterprise calls for the building of a lake sixty miles in length and with an area of approximately 26,000 acres. The basis of this lake will be the French Broad Valley, from a point near Asheville and extending upstream to touch Hendersonville and Brevard, important cities near the present river. At places the lake will be very narrow, but at other points it will have a width of several miles. The total shore line is estimated at 150 miles.

The survey by army engineers will be made under the direction of Major Harold C. Fiske, in charge of engineering projects at Chattanooga. The work will come under the provisions of an authorization for a complete survey of the Tennessee River and its tributaries. One of the most important of the tributary streams is the French Broad. For the entire work of the engineers an appropriation of \$200,000 is now available. It is estimated that the cost of the French Broad survey will be between \$30,000 and \$40,000.

Before undertaking the survey along the French Broad, Major Fiske required assurance that if the proposed development should be found feasible the work would be carried to completion by the building of the lake. This assurance has been given by responsible civic organizations, and it is authoritatively stated that the lake will be a reality within three years if the engineering reports are satisfactory.

To build the lake will require the construction of a dam 150 feet in height near Asheville. This dam will impound an immense volume of water which will be available for commercial and pleasure craft and will prove a valuable factor in the development of this section of North Carolina. This waterway will connect Asheville with Hendersonville and Brevard. Impounding the water will also serve to greatly increase the waterpower possibilities of the stream. Engineers of the United States Geological Survey estimate that without the dam the present potential development below Asheville aggregates 100,000 horsepower and that the dam will increase this to 265,000.

The French Broad drainage area covers approximately 987 square miles, covering the slopes of several ranges of the Alleghenies. In the immediate vicinity are close to 30 mountains higher than Mount Washington and surpassing any other mountains east of the Mississippi. Chief among these is Mount Mitchell, with an altitude of 6711 feet above sea level.

The proposed lake will cover a portion of the world-famed Biltmore estate of the late George W. Vanderbilt, now owned by his widow, Mrs. Edith Vanderbilt. It will also cover much rich farming land and will necessitate the relocation of stretches of the tracks of the Southern Railway and sections of important state highways. It is figured that increased property values will more than offset the expenditure involved in these steps and the other phases of cost.

The total cost of the project is estimated as stated at \$10,000,000, including lands, dam and damages. Estimating the land value at \$5,000,000, or about \$200 an acre, it is stated

that the land bordering the lake will have an immediate value of \$500 an acre. Along the shore line of 150 miles this estimate shows that a strip 200 yards in width would aggregate 10,800 acres of a value of \$5,400,000.

Surveys made by the North Carolina Geological Survey show interesting possibilities for waterpower development in connection with the proposed lake. Above Asheville, in the portion of the stream involved in the impounding project, there is little opportunity for development of power. In this stretch the river falls but 130.9 feet in a distance of 48.35 miles, an average fall of 2.7 feet to the mile. Below Asheville the character of the stream changes. From a stream of comparatively slow current the river is transformed into swiftly moving water with frequent rapids, passing through a rocky gorge which increases in depth as the Tennessee state line is approached. In the 43 miles between Asheville and Paint Rock, at the state boundary, the fall of the stream is 710 feet. It is on this section of the river that the increased waterpower possibilities would be the outgrowth of impounding the waters of the upper portions.

If the survey is satisfactory it is stated that the lake will be completed within three years.

Alabama Power Company Produces Calcium Arsenate by New Process—Said to Be 20 Per Cent Lower in Cost.

Atlanta, Ga., July 7.—[Special.]—Has science at last taken the evil out of the boll weevil?

Announcement has just been made by A. M. Kennedy, of the Alabama Power Company, that his experiments on the electro-chemical production of calcium arsenate have been successful, that the calcium arsenate produced comes up to government requirements, that it can be produced at a cost fully 20 per cent lower than the prices now being paid for the poison, and that in a few years, as equipment is secured, it can be manufactured in sufficient quantities to meet every need of the cotton farmer.

Mr. Kennedy has been working on this process of making calcium arsenate since 1920. Securing leave of absence from the Alabama Power Company, he went to the laboratories of the General Electric Company, in Schenectady, N. Y., where greater facilities could be had in conducting his experiments. There, after nearly two years of work, he has completed the process to his own satisfaction and to the satisfaction of scientists who have carefully gone into the new process.

Final tests, made this spring, showed calcium arsenate made by electrolysis to be identical with the product heretofore made by the expensive chemical methods, and nothing remains but to make field tests of the new material.

The limiting factor—or rather, one of the limiting factors—in producing a cotton crop during the past few years, has been the scarcity and high price of calcium arsenate. If the new Kennedy Process, as it is called, produces a satisfactory poison, this factor will be eliminated.

Paducah Power Plant Unit to Cost \$370,000.

Paducah, Ky.—Construction will begin within a few weeks on the \$370,000 power plant unit to be erected here by the Paducah Electric Co. It is designed for an ultimate capacity of 10,000 kilowatts. The new plant, which will be of steel and brick, is to be equipped with turbines and generating machinery. It will be located at Second and Jefferson streets and will be an addition to the present unit at Second and Monroe streets. Its capacity may be increased as desired.

C. H. Kelsey, superintendent of construction of the engineering department of Stone & Webster, Inc., of Boston, will be in charge of the construction of the new plant.

1,500,000 Barrel Cement Plant Now in Operation at Birmingham—Completed in Record Time.

NEW DRY-MIX PLANT OF PHOENIX PORTLAND CEMENT COMPANY EMBODIES MANY NEW FEATURES IN DESIGN—ELECTRICAL OPERATION, WITH INDIVIDUAL DRIVES FOR ALL UNITS, PERMITS GREAT FLEXIBILITY OF OPERATION.

By CARROLL E. WILLIAMS.

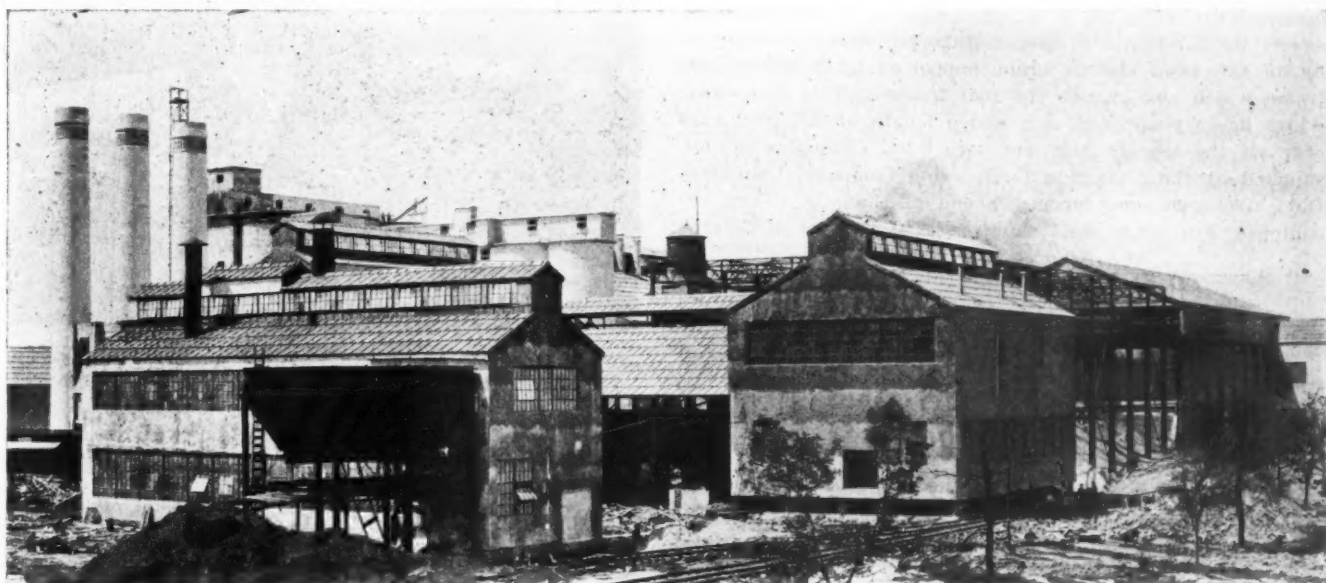
Birmingham, Ala., July 6.

On May 30 the big new plant No. 2 of the Phoenix Portland Cement Company of Nazareth, Pa., located at North Birmingham, began shipping bagged cement, and, within a few weeks, it will be in operation at its full capacity of 1,500,000 barrels annually. Only eight months have elapsed since work was started. Clinker was made seven months from the day construction work started and shipments of finished cement were made three weeks later.

Known as Plant No. 2, it covers a tract of about 105 acres, situated on the main line of the Louisville & Nashville Railroad at North Birmingham, and connections with all the trunk lines entering Birmingham are possible through the Belt Railroad also serving the tract. In addition to the excellent rail facilities afforded, local distribution of the finished product will be expedited by good roads to the city and surrounding country. It is five miles from the center of the city and one-half mile outside of the city limits.

The plant is a "dry mix" type, but refinements in design

sists of a very uniform composition of limestone rock with practically no overburden. Initially the face of the quarry to be worked is forty feet and the rock excavated in this section will be mixed with shale from deposits nearby to obtain the necessary chemical properties. But the second face worked will be to a depth of seventy feet, and, in this section, the composition is practically identical with the cement rock found in the Pennsylvania producing sections. Two Cyclone well drills, made by The Sanderson-Cyclone Drill Co., Orrville, Ohio, together with four No. X-70 drills made by the Ingersoll-Rand Company, New York, are now being used to open up the quarry. The well drills will be used practically exclusively after the opening-up operations have been completed. Two Marion No. 37 electrically operated crawler type full revolving shovels, produced by The Marion Steam Shovel Company, Marion, Ohio, weighing 62 tons each, are used for loading the blasted rock into 8-ton capacity all steel dump cars, 32-inch gage, made by the Easton Car & Construction Company, Easton, Pa., and known



GENERAL VIEW OF PLANT BEFORE COMPLETION.

have been made that insure a product of such uniform analysis as to be on a parity with "wet mix" process cement and much less costly, say the manufacturers. The plant buildings are all of steel and reinforced concrete, with cement tile roofs, making the group entirely fireproof and permanent. There is no wood or corrugated iron in the plant. Electricity is exclusively employed throughout the plant, with the exception of a small steam dinkey engine for quarry operations and a general utility locomotive crane. Motors totalling upwards of 5000 H. P. have been installed and each unit is individually operated and driven so as to be absolutely independent of other units, providing flexibility of operation and preventing break-downs from hampering operation to any serious extent. Especial care has been given to layout of storage space and handling facilities.

The plant is built on a deposit of raw material which con-

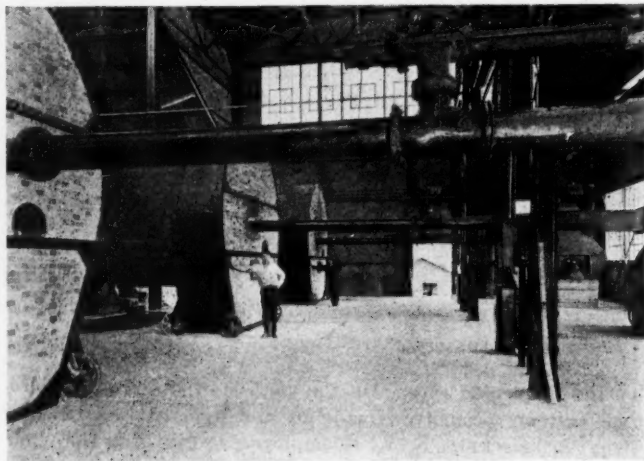
as the "Phoenix" type. On the surface of the ground a storage battery locomotive, made by the General Electric Company, Schenectady, N. Y., is employed for shifting the empty and loaded cars in rock service, and, for general service of a similar nature, there is a 15-ton locomotive, the product of the Davenport Locomotive Works, Davenport, Ia.

After the dump cars are loaded with rock they are pulled up an incline that leads to storage tracks on the ground level and here they are held, to be taken, as needed, into the crusher building. A steel and concrete incline of about 20 degrees leads from the storage tracks to the floor level of the crusher. A cable drum hoist equipped with a 100-H. P. slip ring G. E. motor handles the cars between quarry and crusher building. It was supplied by S. Flory Manufacturing Co., Bangor, Pa. The controls are so located that the hoist operator can see the car throughout its journey from

the pit. A 36-inch Superior crusher, made by the Worthington Pump & Machinery Corporation, New York City, handles the quarry rock which is dumped into it by means of a cable drum which lifts one side of the car so that the rock falls freely out of the other side into the crusher. The rock is discharged at the bottom and is elevated and transferred by a 42-inch continuous Link-Belt conveyor, produced by the Link-Belt Company, Chicago, Ill., to a Pennsylvania hammer mill, supplied by the Pennsylvania Crusher Company, Philadelphia, Pa. From the hammer mill the crushed material



FOUR GEAR-DRIVEN BRADLEY HERCULES MILLS, DIRECT CONNECTED WITH 300 H. P. GENERAL ELECTRIC MOTORS. shoots directly into a covered storage pit, which is traversed by an over-head electric crane supported by a heavy steel frame which also carries the roof trusses. This crane-way, which has a span of 80 feet and a length of 400 feet, runs over all the storage pits, and two 8-ton Champion cranes, supplied by the Champion Engineering Company, Columbus, Ohio, are used—one for either end of the pits. They are equipped with clam shell cable-operated buckets of 3-yards

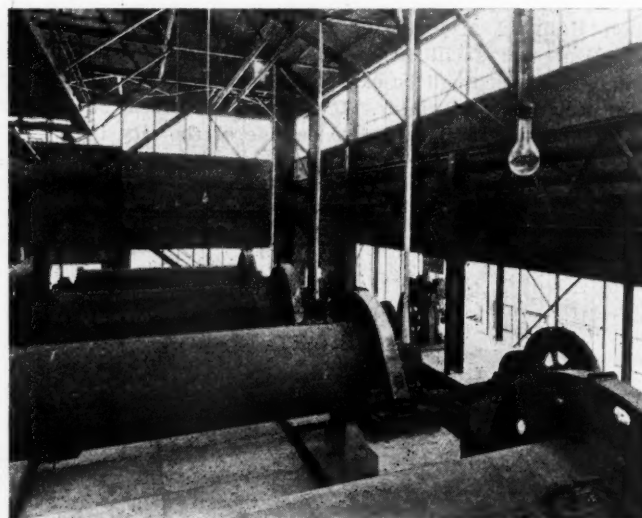


THREE VULCAN KILNS, 10x150. capacity each. The discharged rock is picked up by the cranes and distributed over the storage area or handled direct to the weigh or mix bins on the opposite side.

Shale is quarried at Lewisburg, Ala., about one and one-quarter miles away, where the company owns an immense deposit of shale, well adapted to the manufacture of a high quality cement. The unique feature of this shale deposit is that part of it is high silica and part of it is low silica, and these two can be blended together in whatever proportion is desirable to make a cement of the correct analysis. There is no over-burden. The equipment at the pits consists of a

13-inch gyratory crusher and rolls, supplied by the Traylor Engineering & Manufacturing Company, Allentown, Pa. Elevators and belt conveyors are used for handling the material and placing it in an elevated reinforced concrete storage bin of 200 tons capacity, placed on supports spanning standard gage tracks, so that cars may be run beneath it and loaded by gravity easily and quickly. The material is brought to the plant by a private railroad controlled by the Alabama Company in equipment owned by the cement company. The tracks used for handling these shale-loaded cars parallel one side of the storage pits and the loaded cars are run above a hopper pit and bottom-dumped, with the result that the material slides inside the crane runway where it is picked up and handled either to the mix bins or placed in three reinforced concrete storage bins that hold 800 tons each.

At the mix or weighing bins the limestone is weighed on a 36-inch Poindometer made by the Schaffer Engineering & Equipment Company, Pittsburgh, Pa. Shale is weighed on a 20-inch Poindometer made by the same firm. The two weighing devices discharge onto a 24-inch pan conveyor of the Link-Belt Co., Chicago, Ill., which elevates and conveys the two materials to two 7-foot by 70-foot Vulcan dryers, manufactured by the Vulcan Iron Works, Wilkesbarre, Pa.



FOUR 7x26 TRAYLOR TUBE MILLS, DIRECT CONNECTED THROUGH MAGNETIC CLUTCH TO 500 H. P. GENERAL ELECTRIC SYNCHRONOUS MOTORS.

They are fired with pulverized coal pumped to the firing equipment by compressed air from the coal crushing plant to be described later. At the feed end each dryer is equipped with large dust chambers designed to settle-out all dust and reclaim it, whereupon it is fed again into dryers and used. This is one of the precautions taken to eliminate dust annoyance at cement plants, but it is only a part of such installation here where upwards of \$100,000 has been expended to make the plant as nearly dustless in chimney discharges as possible. The chambers, which are of reinforced concrete lined with fire brick were designed and erected by the company's forces.

An outstanding feature of the plant is the single mill building which grinds both raw and finished materials, thus giving the utmost flexibility and eliminating any serious delays due to break-downs of one or more units. There are four separate and distinct individually operated units for preliminary grinding and four for finished grinding, any of which can be operated on either raw grinding or finished grinding. The preliminary mills consist of four gear-driven Bradley Hercules mills, supplied by the Bradley Pulverizer Company of Allentown, Pa. Each mill is direct connected, through a flexible coupling, with a 300-H. P. General Electric slip ring motor. The finished grinding is done by four 7-foot by 26-foot tube

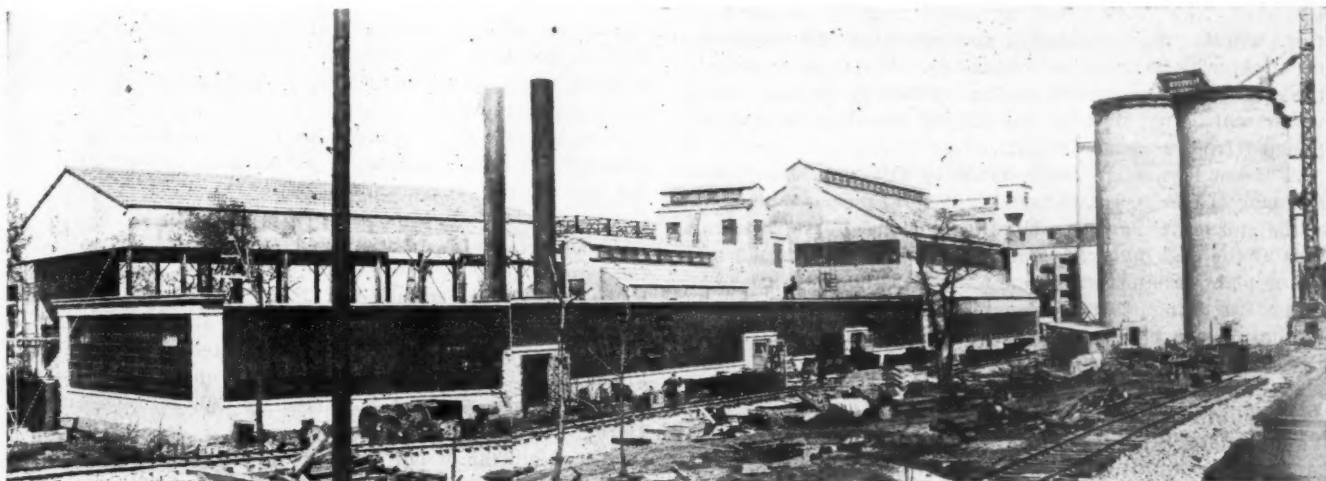
mills, made by the Traylor Engineering & Manufacturing Co. of Allentown, Pa. These mills are charged with fifty-five tons each of inch and one-quarter cylpebs, and each mill is driven by a 500-H. P. 180 r. p. m. General Electric synchronous motor through a 60-inch magnetim clutch, made by the Cutler-Hammer Company of Cleveland, Ohio.

The four Bradley mills, in conjunction with the four tube mills, are capable of grinding 12,000 barrels per day, which can be divided between raw material and finished cement in whatever proportion is desirable, due to the double system of conveying machinery serving these mills.

From the tube mills the raw material is conveyed and

cement. The packing room adjoins the silos and is equipped with four Bates machines, made by the Bates Valve Bag Co. Two belt conveyors are used to serve the four machines, one conveyor running to one side of the packing house and the other running to the other side. These conveyors discharge the full bags directly into the cars standing on the railroad tracks immediately alongside of the packing room, and, in this way, labor costs are reduced to a minimum. There are trackage facilities for sixty loaded cars and sixty empties at one time, all tracks being owned by the cement company.

The bag house adjoining the packing room is 48 feet by 198 feet, and here bags are stored, repaired and cleaned pre-



MACHINE SHOP IN FOREGROUND. BACK OF THIS IN ORDER NAMED: STONE STORAGE, DRYER BUILDING AND MILL BUILDING. FINISH SILOS AT RIGHT.

elevated to the top of silos used exclusively for such storage and designated as "blending silos." There are five silos in line, having a capacity of 2000 barrels each and with inside dimensions as follows: Diameter, 17 feet; height, 65 feet. They are immediately adjacent to the mill building and are parallel to the grinding units. The McDonald Engineering Company, Chicago, Ill., built these silos, each of which is equipped at the bottom with a Link-Belt rotary feeder, with variable speed control, by which means any given amount of material from a certain bin may be removed as desired. Knowing the chemical properties of the contents of each bin, it is possible to obtain a raw material of any desired properties by mixing the contents of the various bins in the proper proportions.

Beneath the rotary feeders of the five silos a Link-Belt conveyor operates to carry the mixture to other conveying equipment at the end of the group, which in turn, carries it to raw mix bins at the head of each of the three kilns. The kilns are 10 feet by 150 feet and were made by the Vulcan Iron Works of Wilkesbarre, Pa. These kilns, like the mill units, are each distinct in themselves, each being driven by a separate motor, and each kiln having its own fan direct connected to an individual motor. By means of screw conveyors the material is fed into the kilns, and, as it passes towards the discharge end by reason of the slope of $\frac{3}{8}$ inch to the foot, it is burned and clinkered. The clinker discharges into a drag conveyor which deposits it within the craneway pits, where it is available for delivery to a concrete hopper 15 feet by 15 feet, connected to the mill building by a 24-inch pan conveyor, or it may be distributed over the storage area for future use. These kilns are likewise fired by pulverized coal, produced and supplied as previously mentioned.

From the tube mills the ground cement is elevated and conveyed to six reinforced concrete silos having inside dimensions as follows: Diameter, 32 feet; height, 84 feet. These, with two interspaces, give a storage capacity of 110,000 barrels of

paratory to use. To care for the big local business in sight, a trucking station 25 feet by 60 feet has been erected, and bagged cement will be stored to enable filling local truck orders quickly and efficiently without interrupting car loading operations in the packing shed.

A separate building houses the coal pulverizing equipment, which was supplied by the Fuller-Lehigh Company, Fullerton, Pa. There are three 42-inch gear-driven Fuller mills, which pulverize the coal after it is dried in an indirect coal-fired dryer. The Fuller-Kinyon system of pumping coal by compressed air is used to serve the various kilns and dryers of the plant.

Each of the kilns is equipped at the feed end with a large dust chamber to settle and reclaim all dust. These dust chambers are built of reinforced concrete lined with fire brick. Each one is 70 feet long, 30 feet wide, and 40 feet high, and contains three baffles, making four separate compartments. They are hoppers at the bottom and screw conveyors underneath carry the reclaimed dust back to the raw silos. There are three reinforced concrete stacks, each 8 feet in diameter and 103 feet high, built by the Webber Chimney Co. of Chicago, Ill. To handle every class of repair work, a complete machine shop has been erected and thoroughly equipped. A structure 50 feet by 260 feet houses the machine shop, store room, blacksmith shop and switchboard room. There is a substation building which houses the transformers, air compressors and similar equipment. Power is brought in at 6600 volts over two 3-wire circuits and stepped down, part to 2300 volts and part to 440 volts, the higher voltage being used on the larger motors. Two G. E. rotary converters are installed in the switchboard room to produce direct current necessary for operation of the electric cranes, magnetic clutches and kiln motors. They are of 250 volts and 300 kilowatts each and only one will be operated at a time, the other being held in reserve for emergency use. Power is purchased from the Sloss-Sheffield Steel & Iron Company,

whose property adjoins the cement plant. This power is the surplus power they make from the waste gases of their by-product coke ovens.

All of the elevating and conveying machinery in the plant is driven by individual motors through Link-Belt silent chain drives, manufactured by the Link-Belt Company of Philadelphia. This type of drive is also used on the rock dryers, coal dryer and the kilns. One of the unique features of the plant is that there is only one belt drive in the whole plant and that is on the crusher. Every other drive is either direct connected or a Link-Belt silent chain drive.

Air for pumping, quarry purposes and similar uses is supplied by two compressors made by the Ingersoll-Rand Company, New York. One, having a capacity of 620 cubic feet, will be used regularly; the other, of 320 cubic feet capacity, will be used as a stand-by. Water pumped from the quarry is to be used in cooling clinkers in the pits. Other water will be supplied by the City of Birmingham and also pumped from a nearby stream.

A 15-ton locomotive crane, made by Orton & Steinbrenner Company, Chicago, Ill., is used for general purposes about the yards and particularly for handling coal from cars to storage bins at the coal pulverizing and pumping unit. All coal used in the plant is mined about one mile from the plant at the big Mary Lee Mine of The Alabama Company. It is brought to the plant over a private railroad in equipment owned by the cement company. The coal is what is known as "washed slack" and contains 13,000 B. T. U's per pound. Gypsum will come initially from the Southern Gypsum Company, Holston, Va., and later from Oklahoma. About 1200 tons of rock will be quarried daily when the plant is operating at capacity.

The kiln dust chambers were designed and erected by the Rust Engineering Company, Birmingham. The Cement Gun Construction Company of Chicago placed gunite cement on all the plant buildings. The American Cement Tile Manufacturing Company of Pittsburgh supplied the roofing. The Virginia Bridge & Iron Company of Roanoke, Va. and Birmingham furnished and erected approximately 1000 tons of steel. The building used as the machine shop, etc. was erected by the Austin Company, Cleveland, Ohio. All doors and windows in the plant buildings were supplied by David Lupton's Sons Company of Philadelphia, Pa. The storage bins were erected by Walsh & Weidner Boiler Company of Chattanooga, Tenn. Weightometers were supplied by the Merrick Scale Manufacturing Company of Passaic, N. J.

The Phoenix Portland Cement Company has a large modern cement plant at Nazareth, Pa., which has been in operation for more than twenty years.

Lindley C. Morton is President of the company and is now making his headquarters in Birmingham. R. J. Hawn is Superintendent of the local plant and had charge of the construction work as well as the operation. E. P. Haubert is secretary and purchasing agent of the company, with headquarters at Nazareth, Pa. S. C. McCurdy is sales manager of the Southern plant, with offices in the Jefferson County Bank Building, Birmingham. The company is now shipping about fifteen cars a day which will be increased to twenty cars a day within a few weeks.

A Fine Cotton Publication.

The Year Book of the National Association of Cotton Manufacturers and the Cotton Manufacturers Manual have been issued for 1923, the year book containing the charter, constitution and by laws of the Association, names of members of the Board of Government, etc. The Manual contains the statistical section and the technical section both of which have been enlarged and improved. Robert Amory is president and H. C. Meserve secretary. These two publications compose one volume of more than 300 pages, which is handsomely bound in cloth.

The "Check Off" System in Coal Mining and Its Power for Evil.

Among the various charges filed against the United Mine Workers of America by the National Coal Association, in communications submitted to the United States Coal Commission, there is one which probably will provoke a thorough investigation by that government board.

It is that declaring that the annual fund raised by the union through the "check-off" system is being used as a war fund and has assumed such proportion that miners commit deeds of violence with the assurance of as strong a defense as money can buy should they be arrested for their misdeeds.

In making the charges the Bituminous Operators' Special Committee asks the complete abolition or regulation of that system, pointing out that the \$15,000,000 raised annually through this method constitute the commissariat of a tightening labor monopoly.

"The union leaders compel the operators to serve as tax collectors by requiring them to deduct these assessments from the pay of the workers," the letter says. It is signed by Colonel Henry L. Stimson and Goldthwaite H. Dorr.

The grave charge that crime in the interest of extending the union's power is encouraged by the knowledge that unlimited funds are available for the defense of indicted offenders is accompanied by an allegation that \$875,000 was assessed for the defense of the men indicted after the Herrin killings, and the following statement of union officials at the time of that assessment is quoted by Col. Stimson and Mr. Dorr:

"The acquittal of our members is without parallel in the labor circles of this country and perhaps any other country, and to know that their defense was financed and made strictly by the Illinois mine workers without their calling for outside help bespeaks volumes of praise for the loyalty of our members and the power and efficiency of your district organization."

Attention of the commission is called to the amount the miners in some instances are required to contribute. It is said that in some districts the monthly assessment has run as high as \$15 per man, often exceeding the amount of house rent, and initiation fees have been as high as \$75.

"Their monopoly can not be achieved without this system of forced contribution," the letter charges. "Time and again it has been shown that without the compulsory machinery of the 'check-off' this organization can not reach its monopolistic objective. Mine workers again and again have refused to support it except under compulsion. Its legitimate activities do not need the support of this burdensome taxation."

In asking that a thorough investigation of the "check-off" be made, the letter recites:

"The secret disbursement of this huge fund without public accountability, taken in connection with a nation-wide campaign of violence and of defense of the perpetrators of violence, is a sinister fact of this industry."

Negroes Own 1,700,000 Acres in Virginia.

Thomas C. Walker, of Gloucester Court House, a colored lawyer-farmer and a graduate of Hampton Institute, states that in Virginia negroes own 1,700,000 acres of land, not including city property. He declared at a recent conference at Hampton Institute that colored farmers of Virginia have school improvement leagues, which have been real assets. "We must teach negro boys and girls," he said, "that the migration must be stopped. Too many are leaving fields of diamonds. Already 10,000 negroes have left Virginia. We won the respect of their white neighbors by cultivating their farms successfully and by organizing community clubs and must tell young colored men to settle down and keep their feet on the soil."

A Lesson of Conservation in Turpentining and Lumbering as Developed in a Georgia County.

By H. A. STALLINGS, Waycross, Ga.

The tenure of life of the natural resources of the country has been a subject of much discussion. One phase of this problem in the South has been a study of the best procedure when the income from turpentine and all naval stores and lumber shall have ceased. That this income could be continued does not seem to have been considered. In the popular mind it was conceded that only a few more years were left in which the South could enjoy a very large income from these two sources.

The rapid depletion of these two resources had been noted by the United States Government and now conservation is being given serious thought in the South. Southern people were habituated to the turpentine still and the saw mill. They had become so common that a future without them was not conceivable. But Government experts have been talking to Southern audiences, telling of a future without naval stores and lumber. They have been taking the illustrations for their talks from Southern states. State Boards of Forestry have ably supported the movement to warn the people. The result is that reforestation, forest fires, rotation of turpentine crops, etc., are now being studied and agitated. Some have now heeded the warnings from the national and state boards of forestry and are using different methods of cropping and milling trees.

One of the leaders, if not the leader, in this conservation is W. V. Musgrove of Clinch County, Ga. Mr. Musgrove has spent his entire business life in the naval stores industry and most of this experience has been in Clinch County. If you should say to Mr. Musgrove that he was investing his money in property that would soon cease to pay profits, he would answer you an indulgent laugh. Why?

He is now turpentining several lots for the third time and many others for the second time. He is getting just as many barrels of spirits the second and third as the first time. That is why he laughs when one talks of decreased income from naval stores. The facts justify the laugh.

Why is it then that Mr. Musgrove is making just as much money the second and third time, while others are having to clear off land and turn it into farms? Can others duplicate this experience? If so, the South has an income from naval stores and from lumber that is permanent, that can be handed down from generation to generation.

There are two reasons. First is the location of the timber and second the method of turpentining and milling.

The pine tree reproduces very rapidly in Clinch County. A day's drive over the country will easily convince one of this. United States forestry experts say that this section leads all others in rapidity and ease of pine tree reproduction. The land is low, level, flat, and frequently wet. The soil is sandy. Mr. Musgrove says he has noticed that other sections of Georgia will not reproduce the pine so rapidly. He is of the opinion that the soil outside the coastal plains, where there is more clay, is the main reason. The other reason is over-cropping or too intensive cultivation.

Now as to the Musgrove method which is enabling him to keep on at the same location continuously. Here are its chief features:

Put no cups on trees less than eight inches in circumference.

Ordinarily put only one cup to the tree.

Turpentine a lot three years and then let it lie idle for five years.

After the second turpentining sell the stumps and all trees fourteen inches in circumference three feet above the ground.

It will be better perhaps to take up each of these separately.

First—Put no cups on trees less than eight inches in circumference. The reason for this is that cupping a tree smaller than this stunts it. This reasoning would have no influence on the operator who tries to get it all from one turpentining, who does not intend to work the lot again, and who is not interested in the future.

Second—Put only one cup to the tree. Mr. Musgrove is of the opinion that this will, over a long period, make more money for the operator. Two or three cups stunt the tree. Put on one cup and streak once a week up to thirty-two streaks—is the recommendation to the operator who intends to turpentine a place continuously.

Third—Turpentine a lot three years and let it lie idle for five. This gives the tree a chance to grow, and those already turpentined a chance to recover.

Fourth—After the second turpentining sell the stumps and all the trees over fourteen inches in circumference three feet above the ground. There are several benefits from this. First, there is the cash value. Mr. Musgrove sold these rights on twelve lots to the Hercules Powder Company of Brunswick for \$2000 a lot or \$24,000. Second, this takes out the larger trees, thus giving more sunshine to the others and results in a more healthy growth for the younger trees. Third, the larger trees do not run the risk of being damaged by fire. Fourth, clearing the lot this way, or rather thinning it, protects the other trees from so large a fire hazard. Fifth, the fresh earth upturned where stumps have been blasted furnishes a fertile soil for the seeds—time and time again seedlings were noted on the edges of these stump holes. Sixth, after this the lot is more easily traversed, wagons and trucks being able to pass through the woods.

Taking up the rotation method, which enables a lot to be developed for an indefinite period, it works out this way. Start with twenty-two and a half lots of land. A lot is 490 acres. The first year put up 50,000 cups on the first two and a half lots. This would yield 200 barrels.

The second year continue the 50,000 cups on the first two and a half lots and put 50,000 cups on the second two and a half lots. This would be 100,000 cups, or a yield of 350 barrels of spirits.

The third year continue the 50,000 cups on the first two and a half lots, the 50,000 cups on the second two and a half lots and put 50,000 cups on the third two and a half lots. This would be 150,000 cups, or a yield of 500 barrels of spirits.

The fourth year keep the first two and a half lots idle, continue the cups on the second and third two and a half lots and add 50,000 cups on the fourth two and a half lots. This would be 150,000 cups, or a yield of 500 barrels.

The fifth year keep idle the first and second two and a half lots, continue the cups on the third and fourth two and a half lots and add 50,000 cups on the fifth two and a half lots. This would be 150,000 cups, or a yield of 500 barrels.

The sixth year keep idle the first, second and third two and a half lots, continue the cups on the fourth and fifth two and a half lots and add 50,000 cups on the sixth two and a half lots. This would be 150,000 cups, or a yield of 500 barrels.

The seventh year keep idle the first, second, third and fourth two and a half lots, continue the cups on the fifth and sixth two and a half lots and add 50,000 cups on the

seventh two and a half lots. This would be 150,000 cups, or a yield of 500 barrels.

The eighth year keep idle the first, second, third, fourth and fifth two and a half lots, continue the cups on the sixth and seventh two and a half lots and add 50,000 on the eighth two and a half lots. This would be 150,000 cups, or a yield of 500 barrels.

The ninth year would see the five year idle period for the first two and a half lots completed. So cups would be placed on it for the second time.

The twelfth year would find the first two and a half lots again idle. This year the stumps on these two and a half lots and the trees over fourteen inches in circumference three feet above the ground would be sold. Therefore the income would be from \$1000 to \$2000 for this plus 500 barrels of spirits, plus the rosin, etc.

From the twelfth year on the income would be steady and such that one could bequeath it to his children knowing that if they used the same method it would not decrease.

This is not theory with Mr. Musgrove. He is working for the third time this year two lots and the yield is equal to that of the first time. He is turpentineing thirteen lots for the second time and finding the yield just as great as the first time. He is now operating a still that has been in continuous operation at the same location for forty-two years. Clearly Mr. Musgrove knows his facts.

Mr. Musgrove has ten lots on which he sold the stumping and lumber rights for over fourteen-inch trees several years ago. At the side of this is a tract that has been idle for practically the same period on which these rights were not sold. It is easy to locate the boundary line with the eye, not merely by the absence of stumps, but by the improved appearance, the more healthy green of the trees, the greater number of saplings. After noting this contrast one could no longer doubt the wisdom of selling the stumps and the lumber rights after the second turpentineing. One gets not only the cash for these rights, but the improvement on the remaining trees and the increased number of seedlings. In addition the woods are not cluttered up and if a chance fire should break out the loss would not be so great.

As yet the firing of the woods has not been discussed. It must be remembered that there is no fence law and the cattle range where they please. While Mr. Musgrove is not in favor of firing the woods he says that not to do so would be to incur the ill will of the neighbors who are wanting free range for their cattle and that this ill will would prove more costly than the firing under supervision. Mr. Musgrove fires the woods every other year. It is done in the afternoons and at night after a rain. This prevents the fire becoming too brisk and doing more damage. It is always done by experienced men who keep a close watch while the fire is burning. The second year the cattle are moved to another range. In this way there is but one weeding cost while a lot is being turpentineed. Mr. Musgrove is in favor of a law that would keep the cattle within fenced pastures, as this would produce better stock. If such a law were in force he would not burn the woods at all.

The writer paid a visit to one stretch of woods where a chance fire had started from the cigarette of some possum hunter. There were hardly any seedlings and all of the young trees had been killed. The chance fire has exacted a costly toll.

Emphatic in his criticism of the short-sighted policy of operators who place cups on trees which are too small and where too many cups are placed to the tree, Mr. Musgrove says this saps the vitality of the tree and destroys its future turpentine value plus much of its lumber value. These are the operators who are destroying a source of large potential income that could be handed on to the next generation.

The State Legislature is permitting these get-rich-quick operators to deprive the State of money that should continue to come in every year.

Mr. Musgrove is investing more and more money in the low timber lands. He believes this is the most profitable investment he can make and that by so doing his children will inherit an income that will continue to increase from year to year.

To Increase Capacity of Ocean Terminals at Texas City to 500,000 Barrels.

Texas City, Tex., July 7.—[Special]—Construction of ocean terminals at Texas City by the Marland Refining Co., of Ponca City, Okla., has advanced sufficiently to allow the recent loading of two tank steamers for coastwise traffic.

The Marland Refining Co. some time ago purchased the holdings of the U. S.-Tex Oil corporation, and immediately began enlarging. Several 55,000-barrel storage tanks were secured and a site of about thirty acres, unloading racks, pipe lines, etc., and wharf privileges.

In discussing plans for enlarging the terminals, Samuel C. Collins, vice-president, states that the company expects to increase the storage capacity to 500,000 barrels. In line with this several 80,000-barrel tanks have been built.

Concerning projected work, Mr. Collins says:

"Our plans for the development of the Texas City plant include the construction of a barreling plant and a blending plant, where oils can be blended to meet the requirements of the foreign trade. Our exports from Texas City will consist of bulk and barreled oils, as we do not contemplate the installation of a package plant. There is a large warehouse on the property and this will be used to house the barreling plant and also to provide storage for barreled lubricating oils. Our immediate plans call for the erection of five 80,000-barrel storage tanks, several of which are already near completion, in addition to numerous smaller tanks for the storage of bulk lubricating oils. There were three 55,000-barrel storage tanks on the property when we took it over from the U. S.-Tex Co., and these have been repaired and are being used for storage of oil at the present time."

New Southern Barges to Be Finished Soon.

Birmingham, Ala., July 7.—The Alabama Dry Docks and Shipbuilding Company at Mobile will soon turn out several of the nine steel barges which it is making for the Tennessee Coal, Iron and Railroad Company for use on the Warrior river. They have to have hatches for protection of cargo. Their construction embraces the most modern features of steel barge building.

Eight will be 25 feet wide and 140 feet long and will carry cargo of 670 tons in eight feet of water. The largest will be 280 feet long by 50 feet wide and will carry cargo of 2925 tons in eight feet of water. They all have a depth of 11 feet.

Four of these smaller barges may enter locks on the Warrior river at the same time. Three of them and a tow boat may enter at the same time. Built to suit the dimensions of the locks to a nicety they will carry cargo with maximum of dispatch owing to the reduction in number of lockages. One power boat may tow seven of these barges with only two lockages. It will move 4690 tons of freight with two lockages—2000 tons with one lockage.

When these Tennessee company barges are on the river the Birmingham steel exporting scheme may be said to have been completed. Steel will move from the mills at Fairfield and Ensley in steel craft made of Birmingham steel direct by water to Mobile, where it will be taken directly on to steamers for Pacific Coast, for Japan and the world at large, the ships carrying the steel from Mobile being themselves built of Birmingham steel fashioned in Birmingham mills and put together in Alabama's port city.

The Muscle Shoals Situation as Viewed in Florence, Alabama.

The Florence Chamber of Commerce.

Florence, Ala., June 22.

Editor Manufacturers Record:

In your issue of June 7th, I note the following extract from a letter written by the Lincoln Mills, of Huntsville, Alabama:

"The question of building a mill at Huntsville hangs entirely on the matter of getting additional power. Our present line being overloaded, calls for a new line. While the Alabama Power Company is willing to put this line in, the people of this part of the South are afraid that it may interfere with the locating of Mr. Henry Ford, at Muscle Shoals and for this reason, they are opposing us in getting power here. Unless we can get additional power, there will be no mill built in Huntsville by our company."

This matter has already been decided by the Utilities Commission of Alabama adversely to the Alabama Power Company, but because the letter, and your comment thereon do not reveal all the facts, and may have a tendency to place the people of this section in a false light, it is deemed proper that the following facts should also be published.

Huntsville, Alabama, is served by a transmission line of the Alabama Power Company built on a 100-foot right-of-way extending from Gadsden to Huntsville with a service line extending from Huntsville to Albany-Decatur and Hartselle, Ala. The demand at Huntsville for power has now exceeded the capacity of this line and it is understood that before there can be any additions to or enlargements of the cotton mills there, the Alabama Power Company must increase its facilities for the transmission of power.

The Alabama Power Company also operates under a contract with the government, a transmission line from the Government owned steam plant at Gorgas, Ala., to United States Nitrate Plant No. 2, at Muscle Shoals, Ala. This transmission line was built with government funds on a right of way purchased by the Power Company with title taken in its own name. The contract, however, gives the government the right to take over the line at any time it may so desire, with the option in the government to require the Power Company to purchase it.

The Alabama Power Company also operates under a lease from the government, the government owned steam power plant, located at Muscle Shoals, Ala.

Both the contract for the operation of the power plant and the contract for the use of the transmission line, are terminable by the government at will, on short notice.

The transmission line from Gadsden to Huntsville has a 15,000 H. P. capacity. The Gorgas transmission line has approximately 30,000 H. P. capacity.

The offer of Henry Ford for the Muscle Shoals properties contemplates a conveyance by the government of the Gorgas transmission line and the steam plant at Muscle Shoals.

The Alabama Power Company has made an offer to the government for the same properties, the acceptance of which offer was not recommended by any of the committees of Congress to which it was referred for consideration.

The Attorney-General of the United States and the Judge Advocate General of the U. S. Army have both advised that under the government contract, it has the legal right to sell and deliver title to the Gorgas transmission line and the government owned steam plant at Gorgas.

The Alabama Power Company is proposing to build a high tension transmission line from Huntsville to connect with the government owned Gorgas transmission line at a point near Muscle Shoals, Ala, at a cost of approximately \$650,000.

This line would have a capacity of approximately 30,000 H. P. The ostensible purpose of this new line is to place Huntsville and Albany-Decatur on a loop, which it is alleged would give those communities better service. It would therefore give the Alabama Power Company a 15,000 H. P. transmission line from Gadsden to Huntsville and the 30,000 H. P. line from Huntsville west, connecting with the government owned Gorgas line.

At a hearing on this case held at Birmingham on May 25, it developed that the power users at Huntsville had been subject to a delay of 1800 minutes during the preceding year on account of breaks in the current. It was also proven by the Alabama Power Company's own expert witness that if the line from Gadsden to Huntsville should be duplicated on the right of way, which it already owns, this break in service could possibly be reduced to 300 minutes, based on the company's experience and records in Gadsden, which is served by similar lines.

It was also testified to by the Power Company's expert witness that even though it should be given permission to build the line it was seeking to build, the company would, within a short time, have to build another line extending from Huntsville to Gadsden duplicating its present line in order to give that line the same capacity which the line extending from Huntsville west would have.

The people of Alabama are not unwilling for the Alabama Power Company to build the line from Gadsden to Huntsville or from Albany-Decatur southwardly and connect with the company's main transmission line near Birmingham. The people of Alabama are willing and anxious that the Alabama Power Company should give Huntsville and every other community served by it, every facility within its power.

It is not believed, however, that the offer of the Power Company to tie on to the government owned transmission line and the government owned steam plant at Muscle Shoals has as its bona fide object better service for the communities already served by it, but it is believed that the chief object of the company is to further tie in to government properties with its own property, and to further strengthen the claim which it is making in Washington, that the government has no right to take for its own use or to sell to another, government owned property built with government money, but which has been used by the Alabama Power Company for several years.

It is not believed that, as a matter of good business, the Alabama Power Company is seeking authority to make an investment of \$650,000 in the building of a line to tie onto a power which might be taken away from it at any time on thirty days notice, and which might indeed be taken away before the completion of such line. Rather it is believed that the Power Company hopes by the making of this investment to so tie its properties onto the Government owned properties that they may never be taken from the Power Company's control. It is the belief that this movement is nothing more than an effort to secure for its own selfish uses the enormous investments made by the Government at Muscle Shoals and in the Gorgas steam plant and transmission line.

It is further believed that this is merely an effort on the part of the Alabama Power Company to pre-empt the entire field in Alabama to be served by power from Muscle Shoals, so that if anyone other than this company gets control of the Muscle Shoals power, they will be forced into other fields for a market for any surplus over and above the requirements for this immediate vicinity.

It is also believed that if the Alabama Power Company is actuated by any sincere desire to develop its own properties along proper and business-like methods, and to serve the communities as they should be served, it would duplicate its line from Gadsden to Huntsville along the right of way already owned by it.

The people of this section feel that the Ford offer is the only one which contemplates a comprehensive use of the great Government properties at Muscle Shoals, and of the power in the Tennessee River. They feel that the acceptance of this offer will result in the greatest good to the greatest number of people. Right or wrong, such is the almost unanimous feeling of our people. With this belief they did not care to jeopardize their opportunities by aligning themselves with the Alabama Power Company.

In order that our position may be fairly stated, you are respectfully asked to publish this article.

H. A. BRADSHAW, President.

[The MANUFACTURERS RECORD is glad to publish the foregoing letter as an expression of the views of the Chamber of Commerce of Florence. In order that the other side of this question may be presented, we invite from the Alabama Power Company a reply to the arguments and statements made by Mr. Bradshaw. It is only through hearing both sides of every case that one can reach a right conclusion. We have not the slightest doubt that while Mr. Bradshaw states the case as viewed by the Chamber of Commerce of Florence there may be another side to the argument which the public should have in order to form an intelligent judgment on the whole situation.

In Mr. Bradshaw's statement referring to the desire of the Alabama Power Company to secure the right which he is antagonizing, it is said:

"It is the belief that this movement is nothing more than an effort to secure for its own selfish uses the enormous in-

vestments made by the Government at Muscle Shoals and in the Gorgas Steam Plant and Transmission Line."

We do not imagine for a moment that Mr. Bradshaw would take the ground that Mr. Ford also is not seeking the Muscle Shoals situation from selfish reasons. He too is asking the Government to give him at a very nominal price, and for a hundred years, and without backing his projected enterprise with his entire fortune, the control of the Muscle Shoals situation. No one for a moment would charge Mr. Ford with not having some selfish interest in desiring to secure an immeasurably great opportunity to enormously increase his fortune. Mr. Ford is a great genius in the development of industry, perhaps the greatest genius in advertising himself and his business that this world of ours has ever seen; but he is not carrying on his work purely from a spirit of philanthropy. If he were doing so he would cut the price of his cars to a point where his enormous profits would be lessened and where the public would pay a lower price for his cars. The profits which he is annually earning from the public, so great as to stagger the mind, could, if he was working purely from the philanthropic standpoint be greatly lessened by giving to the public a much lower price.

The fact of the matter is that the Muscle Shoals situation is one of such very great importance that no company and no individual should be allowed by the National Government to secure that entire property except on some basis far safer to the country than Mr. Ford's proposition, or any other proposition that has been made so far as we have been able to learn. The Muscle Shoals power development is a part of a great river improvement scheme. It is too great in potentiality, considering the expenditures that the Government has made at that point—an expenditure entirely different from the building of camps which had to go to the scrap heap or be sold for anything they would bring—to be dealt with lightly. And however much the natural interests of Florence and Sheffield and their immediate territory would from their standpoint want these properties developed for their exclusive benefit, the nation at large should recognize the great value of this asset and decide how it could be used to the greatest benefit of the country.

Wars have not ceased. There is no probability that some day we shall not be again involved in some great struggle. It is criminal folly to depend upon Chilean nitrates. This Government should be prepared for any emergency. It should produce nitrates in sufficient quantity to meet all ordinary needs in time of war and use these nitrates in time of peace for the benefit of the public. How this can be best accomplished in the handling of the Muscle Shoals situation is a national problem far beyond the direct interests of the Muscle Shoals communities, or the State of Alabama, or the Alabama Power Company, or Henry Ford. A national asset should be so utilized as to secure the largest possible benefits for the nation in time of war as well as in time of peace. The solution of that problem rises above any discussion of the subject which we have yet seen in connection with Muscle Shoals.

We are glad to have Mr. Bradshaw's views. We hope the Alabama Power Company will present its views on the subject, and we suggest that in all of this discussion sharp criticisms and references to "selfish" interests should be eliminated, for such methods are not calculated to bring any real light on the subject but only to muddy the waters.

The Florence Chamber of Commerce is itself acting from "selfish" motives in desiring to have Ford develop Muscle Shoals, but in the same sense that the Alabama Power Co. and Ford are acting from selfish interests and only in that sense. The Chamber of Commerce believes that Ford would do more than anyone else to advance Florence and therefore it favors Ford. Hence our suggestion to eliminate "selfishness" from the whole discussion. Editor MANUFACTURERS RECORD.]

American Manufacturers Spend Over \$3,000,000,000 a Year for Imports, Consisting Largely of Raw Material from the Tropics.

Compilations made by the Trade Record of The National City Bank of New York show that the total value of imports of raw material for use in manufacturing totaled about \$1,500,000,000 in the fiscal year which ended with June 30, while manufacturers for further use in manufacturing aggregated about \$750,000,000. The very highest record made in the pre-war period was \$635,000,000 of raw material imported and \$350,000,000 of manufactures for further use in manufacturing, so that the record of the fiscal year 1923 is about 2½ times as great in stated value as in the highest pre-war year.

While higher prices are in part responsible for this increase, it is quite apparent that the quantity of manufacturing material coming from abroad constantly increases.

Even this high record of nearly 2½ billion dollars of imports in the fiscal year 1923 does not fully measure the sums paid by the manufacturers for foreign material, for the figures which measure our imports represent the cost in the foreign countries from which they are sent to the United States, and when we add the freight across the ocean, the duties paid on entering the country, the profits of the importers and the freights from the port of entry to the door of the factory, it is quite apparent that the manufacturers of the country have paid in the fiscal year just ended considerably more than \$3,000,000,000 for the manufacturing material brought from other parts of the world. The total cost to the manufacturers of the manufacturing material imported in the past decade is approximately \$20,000,000,000.

The material which we draw from other parts of the world is chiefly the product of climatic and labor conditions different from our own. The importations for factory use include rubber, distinctly a tropical product; jute, manila and sisal, also tropical; raw silk, chiefly from China and Japan with large supplies of cheap labor; cotton from Egypt; wool from Argentina and Australia; goatskins from India, China, Africa and the Latin American countries; coconut, oil and copra; gums from the tropical forests; tobacco, grown chiefly in the tropical and sub-tropical climates, and in addition to these products of the soil and tropical climates it so happens that the minerals and metals which we import are from mines within the tropical or sub-tropical belt.

Fortunately, adds the Trade Record, our manufacturers are able to pay "in kind" for this enormous quantity of manufacturing materials which they must have, for the very countries producing this character of material are not producers of manufactures.

\$1,000,000 Improvements to Transcontinental Oil Plant.

Dodge, Tex., July 9—[Special.]—When additions and improvements now being made to the refinery of the Transcontinental Oil Company here are finished they will represent a cost of more than \$1,000,000, it is stated. The work underway at this time will cost \$750,000, according to W. R. Sonricker, superintendent of the lubricating plant. About \$250,000 is being spent for the installation of nine pressure stills for the manufacture of gasoline from by-products. This will increase the capacity of the plant many fold and will complete one of the main units of the project. Additions and completions to the wax plant, filtering plant, sweating plant and the addition of 20 tanks, all at a cost of \$500,000 will complete the improvements. New lubricating oil agitators are being installed and the tankage will provide for 40,000 barrels added capacity.

TAKES A CRACK AT AMERICAN CONSTRUCTION COUNCIL.

How Mr. Roosevelt Didn't Deny Reports.

The Common Brick Manufacturers' Association of America, Cleveland, Ohio, July 6.

Editor Manufacturers Record:

If the American Construction Council did not advise the discontinuance of building for ninety days, as Franklin D. Roosevelt now alleges in the June 28 issue of the *MANUFACTURERS RECORD*, it would appear that Mr. Roosevelt himself is the "guilty party" he so feelingly mentions as having "deliberately and maliciously distorted the recommendations of the Council in order to serve their own immediate purpose."

On May 24 this Association sent the following telegram to Mr. Roosevelt:

"Regret to learn you are about to publicly advocate ninety day suspension all building activity including small homes. The Common Brick Industry most emphatically protests against such ill advised action. Ninety day suspension means one year's suspension. Building is the key industry of the nation. Your proposed action would adversely affect the production of all goods needed to build and furnish homes. Your action would not help in any way to relieve shortage in housing and would not add one single man to the ranks of skilled building labor, but would rather increase the shortage in men by driving them to other occupations. We trust Construction Council will not pursue their threatened policy."

Later on in the same day we received the following reply: "Acknowledging your wire will lay it before Executive Committee American Construction Council. It may interest you to know that your protest is the only criticism of American Construction action received. Apparently all other branches of construction industry of America believe present situation dangerous."

FRANKLIN D. ROOSEVELT.

We leave it to the judgment of anyone having an elementary knowledge of the English language as to whether Mr. Roosevelt's reply is or is not a tacit acknowledgment of the truth of the charge made in our telegram. If the American Construction Council had *not* decided to "publicly advocate a ninety day suspension of all building activity," why did not Mr. Roosevelt say so?

As it was, we bulletined the aforesaid telegrams to the entire common brick industry with the result that vigorous protests poured in upon Mr. Roosevelt, not only from brick manufacturers, but from Chambers of Commerce and other bodies all over the country. These protests have apparently accomplished their purpose, and Mr. Roosevelt is now attempting to back down as gracefully as may be.

The Common Brick Manufacturers' Association takes credit to itself for having thus blocked the attempt of a small group to place the whole construction industry in a false light in the eyes of the public. Unfortunately, it is an open question as to how much injury had already been done to the construction industry by such pernicious activities. There is already a slowing down in building. Supposing the advocates of slowing down or stopping building should, through unfavorable publicity already gone out, eventually prove to have had their way, just whom will this benefit? It is common knowledge that we are still far behind in our building program. Col. Leonard T. Ayres, of the Cleveland Trust Company, states that the building shortage is so great in 50 cities that building could continue at 25 per cent above its normal activity for ten years before it would entirely make up the deficit. It would seem the part of wisdom to keep the industry working at capacity until the situation shall have been relieved, rather than to slow it down, for the latter course would inevitably result in a scramble for men and materials as soon as the public recovered from its scare.

The Common Brick Manufacturers' Association believes that the interests of the public and the construction industry will best be served—not by shutting down and throwing skilled material plant and building mechanics out of work—

but by increasing material plant capacity and by adding to the number of skilled workmen by providing proper and thorough training for an adequate number of young men in all the building trades; for everyone knows that the shortage of skilled men in the building trades is one of the great outstanding problems of the day, and bears a direct relation to building costs. We have already put our belief in practice, and have held a most successful national conference on bricklayer training. A text-book of instruction on bricklayer training is now being prepared at our expense and under our direction, and a director is to be engaged, whose sole duty it will be to get bricklayer classes started in all sections of the country. Already we have been instrumental in establishing several such schools.

The public demands and needs more buildings. The common brick industry is working at capacity and increasing its plants to supply the demand for brick, and has fathered and is actively pushing the training of men to place its product in walls and foundations. Other material interests are following the same course.

We believe in the future of the construction industry, for its fortunes are inseparably bound up with those of the entire country, and the Common Brick Manufacturers' Association will always oppose any arbitrary attempt to halt its progress.

RALPH A. STODDARD, Secretary-Manager.

Preliminary Permit Authorized for Big Hydro-Electric Development on Susquehanna River.

The Federal Power Commission has authorized the issuance of a preliminary permit to the Susquehanna Power Company in compliance with its application several weeks ago for permission to make a survey looking toward the construction of an immense hydro-electric plant on the Susquehanna river in Maryland, the development to involve possibly as much as \$40,000,000.

It has been estimated that the development as proposed will result in the production of about 300,000 horse power. As pointed out to the *MANUFACTURERS RECORD* at the time application was made for a survey, figures as to cost or capacity of the plant can not be regarded as official, as these details will be materially affected by the location of the dam and plant.

In its application for the permit, the company outlined plans for a dam across the Susquehanna river 103 feet high and not more than 110 feet wide.

Officers of the company include George Bullock, of New York, president; E. C. Connette, vice president; J. A. McKenna, secretary and treasurer, and H. T. Van Iderstine, assistant treasurer. An office will be maintained for the present at the offices of Luther M. R. Willis, of Baltimore, one of the company's attorneys. S. A. Williams, of Belair, is also an attorney. Boyd Ehle, with an office at Conowingo, Md., is the engineer of the company.

Plan Two Zinc Smelters at Amarillo.

Amarillo, Tex., July 7.—[Special.]—Two new zinc smelters are to be constructed here soon, if negotiations which are pending for the purchase of a supply of natural gas for fuel are successfully concluded, it is stated. One of the proposed plants is to be built by the American Metal Company and the other by the New Jersey Zinc Company, according to information given by persons interested.

The United States Zinc Company recently constructed and placed in operation here two blocks of a five-block zinc smelter. It obtains its natural gas from the Amarillo field and has a ten year contract. Ore for the Amarillo plant will be drawn from Colorado, Arizona, New Mexico, Nevada, Montana and Missouri. The principal source of supply now, however, is the Sunnyside mine at Eureka, Colo.

\$1,550,000 HOTEL DEVELOPMENT FOR WILMINGTON ISLAND.

Plan 500-Room Tourist Structure of 14 Stories.

Savannah, Ga., July 7—[Special]—Plans are being made by Henryk Wallin, of this city, for a 500-room tourist hotel on Wilmington Island to cost \$1,250,000, in connection with which there is to be golf club, yacht club and ground developments to cost \$300,000. The building will be fourteen stories from the ground floor to the top of the hotel proper; it will be seventeen stories including the casino which will crown the building in its center.

The guest rooms will each have private bath and every room will have an outside exposure. The structure will be of a modified Spanish renaissance type and of fireproof construction. The lower portion will be of stone; from the second floor it will be of stucco and hollow tile, with a tile roof.

C. J. Hunter is representing Henry G. Walthour in promoting the hotel and it is stated that G. L. Miller & Co., of Atlanta and New York, will assist in the arrangement of financial details.

Southern Pecan Growers Form Co-Operative Organization.

Albany, Ga., July 6—[Special]—Temporary organization of the Southern Pecan Growers' Exchange, which has been in prospect for several months, was effected here today, with R. B. Small, of Macon, as chairman and Albany, Ga., as headquarters for the organization.

This will be a cooperative organization following the Sapiro plan, and is designed to eliminate waste and speculation, standardize the nuts into their different grades, prevent "dumping" on the market during the period when prices are most difficult to maintain, and to develop a wider field for the use of pecans, both at home and abroad.

The growers becoming charter members of the exchange will market more than a million pounds of pecans this year, according to a tabulation of the acreage controlled and probable yield, and it is believed by leaders in the new association that the bulk of the paper-shell pecan crop grown in the South will be marketed through this exchange.

In addition to Chairman Small, an organization committee was elected, consisting of B. W. Stone, of Thomasville; H. H. Simmons, of Jacksonville, Fla.; and H. U. Jackson, of Baconton. The general committee of the exchange consists of J. M. Patterson, of Albany; A. M. Wynn, of Leesburg; H. K. Miller, of Monticello, Fla.; J. S. McGlennon, of Rochester, N. Y.; J. D. Drake, of Putney; C. S. Parker, of Thomasville, and H. A. Peacock, of Albany, Ga.

J. S. McGlennon is president of the Northern Nut Growers' Association, and H. K. Miller is president of the Georgia-Florida Pecan Growers' Association.

Industrial Development and New Building Continues Active in the South as Shown by Items in Construction Department of Manufacturers Record.

Industrial, building and general development activities in the sixteen Southern and Southwestern states for the first six months of 1923 show a total of 29,825 items published in the construction columns of the MANUFACTURERS RECORD. This compares with the total of 30,151 items published during the first half of 1922, with 26,674 items that appeared in the similar period of the preceding year, and with 28,546 notices printed in the first six months of 1920.

The total for the four weeks of last month is 4717 items. This included 2285 industrial developments, 1214 building items, 483 financial announcements and 735 machinery, proposals and supplies wanted notices. From the standpoint of numbers road and street construction items hold first place,

the total for the month being 669. Announcements regarding bridge, culvert and viaduct work total 233 for June. In the first half of 1923 road and street construction notices totaled 4353, while bridge, culvert and viaduct projects were mentioned in 1331 notices.

The development of miscellaneous enterprises in wide variety is told in 2418 items, this classification thereby holding second place. The number of dwelling notices, which hold third place, is the more impressive when it is recalled that all such projects costing less than \$10,000 each are omitted because of space limitations.

Viewed as a whole the activities represented by these items clearly indicate the broad program of building and industrial expansion now underway in the South.

	Totals for June	Totals for January June (Inc.)
Industrial Developments		
Airplane Plants, Stations, etc.	1	4
Bridges, Culverts, Viaducts	233	1331
Canning and Packing Plants	22	122
Clayworking Plants	11	73
Coal Mines and Coke Ovens	31	247
Concrete and Cement Plants	6	49
Cotton Compresses and Gins	27	133
Cottonseed Oil Mills	7	21
Drainage and Irrigation	19	81
Electric Light and Power Plants	67	433
Fertilizer Plants	8	42
Flour, Feed and Meal Mills	10	106
Foundry and Machine Plants	16	162
Gas and Oil Developments	91	515
Ice and Cold Storage	9	176
Iron and Steel Plants	3	14
Land Developments	161	1022
Lumber Enterprises	53	353
Metal-Working Plants	13	142
Mining	22	142
Miscellaneous Construction	40	245
Miscellaneous Enterprises	395	2418
Motor Cars, Garages, Tires, etc.	110	719
Railways and Street Railways	9	49
Railway Shops, Terminals, Roundhouses, etc.	4	24
Road and Street Construction	669	4353
Sewer Construction	81	491
Shipbuilding Plants	0	8
Telephone Systems	15	99
Textile Mills	44	338
Water-Works	80	538
Woodworking	27	286
	2285	14,757
Buildings		
Association and Fraternal	31	185
Bank and Office	46	392
Churches	128	770
City and County	50	217
Courthouses	6	46
Dwellings	264	1756
Government and State	16	49
Hospitals, Sanitariums, etc.	49	222
Hotels and Apartments	102	777
Miscellaneous	37	217
Railway Stations, Sheds, etc.	7	71
Schools	309	1480
Stores	113	796
Theaters	20	82
Warehouses	36	205
	1214	7365
Financial		
Corporations	92	552
New Securities	391	2140
	483	2692
Machinery, Proposals and Supplies Wanted		
	735	4233
TOTALS	4717	28,947
Fire Damage	87	878
	4804	29,825

St. Mary's Hospital to Cost \$300,000.

Memphis, Tenn., July 7—[Special]—Plans for St. Mary's Hospital to be erected here at a cost of \$300,000, are being prepared by Henry J. Kramer, of Memphis. The hospital building will be 210 by 50 feet, three stories and basement, of reinforced concrete construction and composition roof. There will also be a power house and laundry, two stories, 60 by 50 feet, to be equipped with high and low pressure boilers. An electric passenger elevator and two electric dumb waiters will be installed.

In the construction of the building, hollow fireproof and interior tile will be used as well as hardwood floors, metal doors, ventilators, steel sash and trim and wire glass.

Seeking \$40,000,000 for Handling Texas Cotton Crop.

Dallas, Tex., July 7—[Special]—On the eve of his departure for New York for the purpose of arranging for credits of more than \$40,000,000 to be used in financing the Texas cotton crop, Sloan Simpson, of Dallas, treasurer of the Texas Farm Bureau Association, stated that he did not expect the slightest difficulty in arranging for all the money needed.

The association borrowed \$12,000,000 last season, succeeding in getting it at 5½ per cent, while commercial houses in many instances were compelled to pay 6 per cent, Mr. Simpson said. The association handled 77,709 bales last season, but expects to handle around 300,000 the coming season.

The membership in the association has increased 4000 over last year and the number is being added to daily, organizers report.

Mr. Simpson said he had received letters from the Discount Corporation of New York and the Seaboard National Bank of New York congratulating the association on its successful business last year.

Plan 25-Story Office Building at Tampa to Cost \$1,400,000.

Tampa, Fla.—Plans are being perfected by the Florida Realty Corporation for the erection of a 25-story office building in this city at Madison and Franklin streets to cost about \$1,400,000, including the site. This company has organized with Vance W. Heim as president and arrangements have been made with Anderson-Doddridge & Co. of Tampa and St. Petersburg for underwriting \$1,400,000 of bonds.

The structure will be known as the Guaranty Title Building and will be 105 by 60 feet, with entrances on both streets. It will be equipped with eight elevators, a circulating ice water system and compressed air for dentists. M. Leo Elliott of Tampa is the architect.

Upon completion of the building, it is stated that the National Guaranty Co. of Tampa, which is controlled by Mr. Helm and R. E. L. Smith, will move its main office from St. Petersburg to Tampa and continue the St. Petersburg office as a branch.

Birmingham Lets Contract for \$500,000 Auditorium—Seating Capacity of Over 6000.

Birmingham, Ala.—Contract has been awarded to Day & Sachs, of this city, to erect the proposed \$500,000 municipal auditorium here. It will have a seating capacity of more than 6000 and will be of North Italian architecture, constructed of rough texture brick and structural steel. The contract price is \$409,100 for the building complete, exclusive of mechanical equipment.

Plans for the auditorium have been prepared by the Birmingham Association of Architects, including Hugh Martin, D. O. Whildin, Bem Price, E. H. Knight, J. A. Miller, Harry B. Wheelock, William Warren and others. D. E. McLendon is president of the City Commissioners.

Survey of Tucker County, W. Va.

The West Virginia Geological Survey has issued a large, finely bound volume in blue cloth presenting its report on Tucker County for 1923. This report is by David B. Reger and it contains 542 pages plus 18 pages of introductory matter. It is illustrated with sixteen half tone plates and eleven zinc etchings and there is, besides, a separate case of topographic and geologic maps. The address of the Survey is P. O. Box 848 Morgantown, W. Va., and copies of the volume will be supplied complete at \$3 each. The illustrations are fine and instructive as well as interesting while the reading matter is very comprehensive.

\$10,000,000 Mortgage Company for Washington.

Washington, D. C.—Organized with an authorized capital stock of \$10,000,000, of which \$5,000,000 will be preferred and the remainder common stock, the Real Estate Mortgage and Guaranty Corporation has opened temporary offices in this city at 26 Jackson Place. The new corporation, of which L. E. Breuninger is president, will purchase mortgage notes secured on improved real estate and conduct business incident to transactions of that character.

Officers of the new company, in addition to Mr. Breuninger, include Thomas Somerville and Roy L. Neuhauser, vice presidents, and Gen. Anton Stephan, treasurer.

\$1,000,000 Apartment House for Baltimore.

Plans have been prepared by Frederic A. Fletcher, a local architect, for a \$1,000,000 apartment house in Baltimore to be located on Charles street in the Homewood section. The building will be erected by Miss Bessie Brown of Washington and will be about 70 by 132 feet, of Georgian design, ten stories, of reinforced concrete, brick and stone construction, with a slag roof. It will be equipped with three elevators.

Contract for construction has been awarded to the Weller Construction Co. of Washington.

Inaugurate Steamship Line from Seattle to Texas.

Aransas Pass, Tex.—Under charter to the Henry D. Davis Co. of Portland, Ore., the steamship Florence Luckenbach sailed on June 16 from Seattle for Port Aransas, Tex., via the Panama Canal. The ship carries 4,000,000 feet of fir lumber and 6,000,000 red cedar shingles.

According to W. A. Scrivener, traffic manager of the Aransas Dock & Channel Co., the success of this trip will mean regular service in the future.

Fort Pierce Votes \$220,000 Bonds—Will Deepen Harbor and Fill Marsh Land.

Fort Pierce, Fla., July 6—[Special.]—Fort Pierce has voted \$220,000 bonds for the purpose of deepening its harbor to 16 feet and for filling in marsh lands around the city. Work on the new harbor will commence August 1. When the development is completed it is expected that the marine trade of Fort Pierce and St. Lucie County will expand rapidly.

Contract for \$825,000 Office Building in Houston.

Houston, Tex.—The Southern Loan & Investment Co. has awarded contract at \$825,000 to the American Construction Co., of Houston, for the erection of an office building at Fannin street and Walker avenue. The contract price is exclusive of inside partitions and finish. The building will be 151.6 by 108 feet, 10 stories, of reinforced concrete, brick and steel. Excavation for the structure has already begun.

To Erect \$250,000 Bank Building.

Bartlesville, Okla.—Officials of the Union National Bank of this city announces that work will soon begin on the erection of a 6-story bank and office building here to cost \$250,000. The building will occupy the site of the present structure at Third and Johnstone streets and will have dimensions of 50 by 90 feet. It will be of reinforced concrete, with dressed stone for the first story and face brick above.

Contract Let for \$900,000 Masonic Temple.

Nashville, Tenn.—General contract has been awarded to Hugger Bros. of Montgomery, Ala. for the erection of the \$900,000 temple to be erected here by the Scottish Rite Masons. The building will be of steel and Indiana limestone, 115 by 145 feet. Asmus & Clark of Nashville are the architects and D. R. Burns is the chairman of the building committee.

THE IRON AND STEEL SITUATION

Operations Lighter—Steel Situation Now Feeling Effects of Previous Great Activity in Production and Shipments.

Pittsburgh, July 9—[Special.]—Production of pig iron in June was at a rate only 2 per cent lower than production in May, the record high month. Production of steel ingots was at its highest rate in April, declining a trifle in May, and somewhat more in June. This month operations are somewhat lighter all around, partly on account of a few mills or departments being closed for repairs, partly because hot weather is cutting down tonnage output of the operating mills and partly because buyers do not want as heavy deliveries as formerly.

The steel situation is now feeling the effects of the very heavy production and shipments of the past nine months. The recent buying movement began last December, being really a revival of the earlier movement, and in the first three months of this year buyers seemed to be very fearful that there would not be enough steel to go around. Apparently they had in mind the experience of 1920, when steel was very scarce through August, though later it became altogether too plentiful.

It has required very heavy shipments of steel to convince buyers that there would be enough, but evidently the buyers are now thoroughly convinced. Production has been much heavier than was expected, as the mills have been able to operate freely, with an ample supply of fuel and excellent transportation facilities, things that were lacking in 1920.

These up and down movements in steel, which have been familiar from early times, seem to consist largely in the country building up stocks of steel and of manufactures of steel to what is considered "normal" proportions and then curtailing purchases until stocks are far below what is considered normal. The actual consumption of steel does not vary nearly as much as the production.

In the last movement, which culminated in 1920, lack of demand began restricting mill operations about October 1. Previously the mills had been striving to make all the steel possible, but had been handicapped by various conditions. In the nine months to the beginning of this month about 83 per cent as much steel has been made as in the 12 months to October 1, 1920, i. e., seven-eighths as much steel has been made in three-fourths the time. From the present outlook production will now have to taper off very materially.

There is a fair turnover in finished steel products, but the buying is largely of routine character, regular customers placing additional orders with the sources of supply as old orders are worked out. There is very little by way of strictly new buying.

Scrap, coke and pig iron prices have continued declining in the past week, while finished steel prices are unchanged. Advances in finished steel products ended in April, and indeed some lines reached their top in March. It is exceptional for steel prices to start declining as soon as they have ceased advancing. Usually there is quite a period of a sustained market, sometimes of many months' duration. Scrap, coke and pig iron on the other hand are sensitive.

In all districts scrap prices reached their top point about March 15 to 20, promptly thereafter beginning to weaken, and the declines have been practically continuous since then. Connellsville coke reached its top point at about the same time, at \$7.25 to \$7.50. For a month past spot furnace coke has been at about \$5.00, but it was not until about ten days ago that coke over the third quarter could be bought at \$5.00. Since then a contract has been made at under \$5.00.

Pig iron remains stagnant in the local market and prices have continued to yield. Bessemer may still be quoted at

\$27.50, valley, but that is hardly more than a single carload price. Late in June basic sold at about \$25.50, valley, while a few days ago \$25, valley, was done, and the uncertainty of the market is seen by the fact that there is an unconfirmed rumor that a sale has been made at \$24. Foundry iron continues quotable at \$26.50, valley, but this is practically nominal.

Continued Optimism at Birmingham—Gain in Pig Iron Production for Six Months.

Birmingham, Ala., July 9—[Special.]—The Southern pig iron market is withstanding two strong forces, consumers only buying to meet their immediate needs and a constant request is being made to give concessions on the \$27 per ton price, No. 2 foundry. As long as the present conditions of the order books continue, it is hardly possible for any material deflection in the quotations, the producers asserting that the costs of make are high with very little chance of reduction. The scarcity of labor is another factor that is being reckoned with and lately it has become a very serious consideration, in fact two blast furnaces have found it necessary to bank fires at times and several consumers have found it impossible to get capacity production because of the lack of labor. The Tennessee Coal, Iron & Railroad Company has blown out Oxmoor furnace.

With persistency the Southern furnace interests have been maintaining the \$27 per ton base for pig iron, No. 2 foundry. The action of the Central Iron & Coal Company, (Iron Products Corporation), at Holt, in Tuscaloosa, in offering several thousand tons of pig iron at \$25 is still being commented on but the market continues as it has for several weeks, very few orders coming in and those which are to hand being of small size. The large and more active furnace interests assert there is no reason for manifesting uneasiness about the market but find it reasonable to wait. Consumers are still believed to be waiting for improvement in their orders before placing contracts for iron. Consensus of opinion is that the future prospects are more optimistic than otherwise.

Production of pig iron in Alabama during the first half of the year showed a material gain, upwards of 400,000 tons over the make the first half of the previous year, the official total for the first six months of 1922 being 963,619 tons. Despite the fact that fires in some blast furnaces were banked the past week because of the holiday and labor shortage and one furnace blown out, it is believed that the total for the last half of the present year will show an increase over the figures of the last six months of 1922 when 1,267,600 tons were produced. With the books well filled with business for the third quarter of the year the furnace interests appear to be confident there will be a return to activity within a short while. Those not inclined to optimism are beginning to call attention to the approach of the national political campaign but this is answered by the optimists that the development of the country is not to be stopped by a political campaign any more and building and other movements are to be continued right along.

The Lehigh Portland Cement Company is pushing the work on the new, modern cement plant at Tarrant City, just outside of the city limits of Birmingham, and within the next three weeks will start the plant. The ultimate production at this works will be around 1,500,000 barrels of cement annually. The Phoenix Portland Cement Company at North Birmingham is producing something like 5000 barrels of cement a day now and the plant of the Atlas Portland Cement Company at Leeds, 20 miles from the city is doing a little better than this.

Another cement plant at Ragland, 25 miles east of here, is producing around 2000 barrels of the product daily. The demand for cement appears to be good.

The cast iron pipe plants, the pressure pipe makers, are operating to capacity, lettings being announced every week. Present indications are that these industries will have business to keep them busy through the balance of the year and into 1924. The National Cast Iron Pipe Company within three or four weeks will be prepared to produce cast iron pipe under the DeLavaud method of pipe making. The United States Cast Iron Pipe and Foundry Company is also rushing work on an addition of four of these machines.

Much pressure pipe is being moved from this district to California ports, via Mobile and the water route. Notice has been given of a proposed advance in water freight rates August 1.

The coal trade promises to show improvement this month. The low mark of production has been noted three or four weeks now, the weekly output being around 353,000 tons. The high weekly tonnage was 416,000 tons in this state. The DeBardeleben Coal Corporation, absorbing the DeBardeleben Coal Company, Inc., the Empire Coal Company and the Corona Coal Company, is to give attention to considerable development in the future in the coal fields of Alabama and, also in the shipping and export business at the Southern ports. Coal operators of the Birmingham district have asked the railroads to give concessions on the freight rates for bunker and shipping coal in order that a larger business can be worked up at New Orleans, Mobile and Pensacola. The coal operators have assured the railroads that there will not be less income but that additional business will more than make up the difference.

The scrap iron and steel market continues dull here and all quotations are weak. Stove plate showed a little life recently and quotations were firmer but the general list showed weakness.

The coke market is beginning to weaken also in this district though production is not being interfered with. Considerable coke is being moved on contracts and the condition will continue for several weeks yet, even if no new business is received.

Quotations for pig iron and iron and steel scrap follow:

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$25.00 to \$27.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$25.50 to \$27.50; iron of 2.75 to 3.25 per cent silicon, \$26.00 to \$28.00; iron of 3.25 to 3.75 per cent silicon, \$26.50 to \$28.50; iron of 3.75 to 4.25 per cent silicon, \$27.00 to \$29.00; charcoal iron f. o. b. furnaces, \$34.00.

OLD MATERIAL

Old steel axles	\$22.00	to	\$23.00
Old iron axles	25.00	to	26.00
Old steel rails	17.50	to	18.00
Heavy melting steel	15.00	to	15.50
No. 1 R. R. wrought	15.00	to	16.00
No. 1 Cast	20.00	to	20.50
Stove plate	16.50	to	17.50
Old car wheels	18.50	to	19.00
Old tramcar wheels	19.50	to	20.50
Machine shop turnings	8.00	to	10.00
Cast iron borings	10.00	to	11.00
Cast iron borings (Chem.)	16.50	to	17.50

Lumber and Passenger Line to Be Built.

The Franklin & Carolina Railroad Co., recently chartered in Virginia, will build a line about 9 miles long from Franklin, Va., to Weyanoke on the North Carolina boundary and, according to a letter from Burton J. Ray, assistant secretary and treasurer of the Camp Manufacturing Company to the MANUFACTURERS RECORD, it will be used for both logging and passenger purposes. Construction will be light. The Camp Manufacturing Co. of Franklin are lumber manufacturers. P. D. Camp being president, J. L. Camp vice-president and general manager and J. M. Camp, 2nd vice-president. They have mills at Franklin as well as at Wallace, N. C. and Marion and St. Stephens, S. C.

RAILROADS

New Short Line Would Cut 150 Miles Off Shipments of Export Coal.

According to a report in the Knoxville, Tenn., Journal and Tribune the proposed line of the Southeastern Railway Co., which was incorporated several months ago in Kentucky will be only about 12 miles long and will connect the Louisville & Nashville Railroad and the Southern Railway for the purpose of moving out coal from mines in Harlan County, Ky. It was at first reported that the road would be about 35 miles long. The route now outlined is from Dellville, in Lee County, Va., on the St. Charles branch of the Appalachia division of the Southern Railway and thence by means of a tunnel to be cut through the Little Black Mountain at Tracy Gap to the valley of Clover Fork of Cumberland River in Harlan County, Ky., following it to a connection near the mouth of Fugate's Creek with a railroad of the Cornett-Lewis Coal Co., 2½ miles long which would be used to its connection with the Louisville & Nashville Railroad.

At a hearing before the Interstate Commerce Commission, the report says, C. E. Burchfield, division superintendent of the Southern Railway at Bristol, Va.-Tenn., stated that the lease of the Clinchfield Railway by the Atlantic Coast Line and Louisville & Nashville lines would release coal cars of the Southern which could be sent to the proposed Southeastern Railway, which would have the good will of the Southern, although the latter had no financial interest in it. Besides the Southern proposed to buy 850 more coal cars immediately. Sending coal from Harlan County over the Southeastern Railway and the Southern Railway, Mr. Burchfield is further reported saying, would shorten the distance fuel would have to travel from the mines to the Carolinas and the eastern part of Georgia.

Several other witnesses, it is stated, testified that the route to Charleston, S. C., for export coal would be shortened 150 miles by building the projected short piece of railroad. Now it has to go around via Knoxville and Atlanta.

L. O. Pettit, of Big Stone Gap, Va., is president of the Southeastern Railway Co. W. H. Hahn is vice president, J. F. Bullett, Jr., secretary and C. R. Carver, treasurer. John W. Chalkley, also of Big Stone Gap, is counsel.

Terminal Improvement Projected.

Galveston, Tex., July 7—[Special.]—Preliminary steps have been taken by the Trinity & Brazos Valley Railroad, owned jointly by the Burlington and the Rock Island systems, to improve its deep-water terminal here on an extensive scale. About fifteen years ago the road purchased eight choice blocks of land fronting on the harbor but the line was never extended into Galveston, its southern terminus being Houston. Negotiations are now pending and are said to be practically concluded by which the Trinity & Brazos Valley obtains trackage rights into Galveston over the Galveston, Houston & Henderson Railroad, and as a first step toward starting construction of terminals the present tenants of the property have been ordered out. The Burlington and the Rock Island are expected to finally divert much of their export traffic through Galveston.

Working to Revise Connection With Clinchfield Line.

Engineers of the Atlantic Coast Line System are reported at work in Laurens County, S. C., on a revision of the line of the Charleston & Western Carolina division with a view to eliminate grades and curves for the better handling of traffic to be received from the Carolina, Clinchfield & Ohio Rail-

way as a result of the recent agreement to lease that property. The improvement of this road was foreshadowed when the announcement of the lease was made and the estimated cost of the work to be done is from \$3,000,000 to \$4,000,000, as previously noted. The improvement will include laying of heavier rails for the handling of larger equipment which will be necessary to adequately move coal from the mines to the seacoast. Undertaking of the actual construction work required awaits confirmation of the lease by the Interstate Commerce Commission.

Change of Control of International & Great Northern Railroad.

It was announced in New York last week that control of the International & Great Northern Railroad Co. had passed into the hands of capitalists represented by Swartwout & Appenzellar, bankers, through the purchase of 28,000 voting trust certificates from the syndicate headed by J. & W. Seligman & Co., and Speyer & Co., which underwrote the reorganization plan of the road and that this transaction gives the purchasers 38,000 voting trust certificates out of a total of 75,000. It was further stated that the purchase was not for the immediate account of any other railroad company and that this completes the sale of securities held by the reorganization syndicate, which will now be closed.

A proposition to sell the International & Great Northern control to the St. Louis-San Francisco Railroad Co. recently failed of approval before the Interstate Commerce Commission although it had long been proposed and expected, because the Commission decided that it would not be in the public interest to combine the two roads. Its opinion further stated that the Missouri Pacific Railroad claimed that the International & Great Northern was built to form a continuous line in connection with it and the Texas & Pacific Railway and that for 40 years it had been preferentially used by the Missouri Pacific for freight and for through passenger trains.

Railroad Figures for May.

The statement of the Western Maryland Railway Co. for May shows operating revenues, \$2,133,409; increase as compared with the same month of last year, \$861,593; operating expenses, \$1,647,904; increase, \$687,168; net income after fixed charges, \$161,884; increase, \$159,165.

The Norfolk & Western Railway Co. reports for May operating revenues, of \$8,056,803; operating expenses, \$6,034,746; net operating revenues, \$2,022,056; net income, \$1,546,130, the latter showing a decrease of about \$2,000,000 as compared with the same month last year, this being due, it is stated, to the fact that in May, 1922 there was an extraordinary large coal traffic from the non-union mines along the Norfolk & Western because union mines in other regions were shut down by the strike.

The Atlantic Coast Line for May reports gross revenues, \$7,144,544 and net operating income \$1,453,681. Net operating income for the first five months of this year totaled \$9,385,875 as compared with \$7,889,105 for the same period of last year.

Freight Movement Continues Heavy.

Loadings of revenue freight on the railroads during the week ended June 23 again exceeded the million mark, the total being 1,002,740 cars or 136,419 cars more than were loaded in the corresponding week of last year and 227,293 cars more than in the same week of 1921, although 4500 cars less than the preceding week of this year, owing to decreases principally in coal, merchandise and miscellaneous freight traffic.

Railroad Earnings Thus Far This Year.

The Bureau of Railway Economics, Washington, D. C., reports that the net railway operating incomes of the Class I railroads of the United States during May amounted to \$89,999,600, representing a return, on an annual basis, of 6.33 per cent on their tentative valuation. The same railroads in May last year had net operating income of \$62,069,000, or 4.46 per cent. Total operating revenues of the railroads during May were \$547,282,500, an increase of over 21½ per cent as compared with the same month of last year. Operating expenses were \$420,656,000 an increase of more than 18½ per cent. The net operating income of the Class I railroads for the first five months of the current year was \$356,966,900 or at the annual rate of 5.69 per cent on their tentative valuation, which compares with 4.45 per cent for the corresponding period of last year. Operating revenues for the period this year were \$2,553,856,600, an increase of 19.4 per cent and operating expenses were \$2,026,163,600, an increase of 18.2 per cent.

New Equipment.

Florida East Coast Railway Co. has asked the Interstate Commerce Commission for authority to issue \$2,000,000 of 5 per cent equipment trust certificates in part payment for 20 locomotives from the American Locomotive Co., 15 baggage cars, 2 mail cars and 1 dining car from the Pullman Company; 200 box cars and 10 caboose cars from the Mount Vernon Car & Manufacturing Co. and 200 flat cars from the American Car & Foundry Co., the total cost of this equipment being \$2,511,110.

Recently noted orders for railway equipment include 36 electric motive power units by the Virginian Railway from the Westinghouse Electric & Manufacturing Co. and the American Locomotive Co.

Inquiries for equipment reported in the market include 50 coal cars of 70 tons capacity for the Birmingham Southern Railroad and 5 passenger cars and 10 baggage cars for the Missouri Pacific Railroad.

Fort Myers to Bonita Springs, Fla.

Construction of the Fort Myers Southern Railroad projected from Fort Myers, Fla., to Bonita Springs, Naples and Marco, Fla., a total distance of about 45 miles, has not yet begun but J. E. Willoughby, chief engineer of the Atlantic Coast Line, Wilmington, N. C., informs the MANUFACTURERS RECORD that the suggestion at present is to construct the line from Fort Myers as far as Bonita Springs, about 23 miles.

The Atlantic Coast Line owns control of the Fort Myers Southern Railroad.

Railroad Clerks' Pay Raised.

The Baltimore & Ohio Railroad Co. has raised the pay of about 5000 of its clerks 10 cents a day and a similar increase has also been given to several other classes of employees. The pay of employees at freight stations will be raised 20 cents a day and miscellaneous employees at stations and baggage rooms will receive increases of 1 and 2 cents per hour, the eight-hour day being in effect for all classes of employees named.

Double Tracking Contract Let.

The Norfolk & Western Railway Co. has let a contract to the Walton Construction Co., according to a report from Welch, W. Va., for building second track on the main line from Naugatuck to Kermit Tunnel and also from the west end of the tunnel to the town of Kermit, altogether about 4 miles. Construction is to begin as soon as the necessary contractors' equipment can be moved to the job.

GOOD ROADS AND STREETS

OVER \$2,740,000 IN CONTRACTS.

North Carolina Makes Awards for 132 Miles of Roads.

Raleigh, N. C., July 6—[Special.]—Contracts have been awarded by the State Highway Commission for the construction of roads in various sections of the State aggregating 132 miles and costing \$2,743,535, included in which are a bridge and an overhead crossing to cost \$26,359. The awards include: 18.93 miles of top soil road in Edgecombe County, J. P. Dicus, Robersonville, N. C., contractor at \$131,626 for roadway and J. A. Peterson, Montgomery, Ala. at \$64,008 for structures; 19.69 miles of hard surface road in Wilson, Pitt and Green counties, Smith Bros., Dallas, Tex., at \$680,024 for roadway and the Public Service Production Co., Newark, N. J., at \$58,644 for structures.

For 10.43 miles of hard surface road in Craven County, contract was awarded to the Eagle Engineering Co. of Newbern, N. C., at \$406,409 for roadway and structures; 3.83 miles of soil road in Granville County, Michaux Contracting Co., Morganton, N. C., at \$38,996 for roadway and structures; 3.82 miles of hard surface road in Harnett County, J. M. Gregory, Pittsboro, N. C., at \$119,576 for roadway and T. J. Newell, Clinton, N. C., at \$17,146 for structures; 11.58 miles of soil road in Person County, Michaux Construction Co., at \$78,426 for roadway and structures.

Contract was awarded the J. F. Mulligan Construction Co., North Wilkesboro, N. C., at \$71,656 for 3.67 miles of penetration in Montgomery County; for 3.83 miles of hard surface road between Peachland and Polkton, B. F. Teeter, Harrisburg, N. C. is contractor at \$29,941 for roadway and J. A. Peterson, Wadesboro, N. C. at \$14,283, for structures; 3.54 miles of hard surface road in Rowan County, Sterns Bros., Statesville, N. C. at \$122,587 for roadway and the Luten Bridge Co., Knoxville, Tenn., at \$29,631 for structures; 6.49 miles in Allegheny County, Turner-Hartsoe Construction Co., Warrensville, N. C., at \$146,075 for roadway and the Luten Bridge Co. at \$28,231 for structures.

For 5.68 miles in Avery County, Hughes & Ray, Newland, N. C., are contractors at \$102,513 for roadway and structures; 4.89 miles in Burke County, M. A. Kollock, Morganton, at \$45,988 for roadway; 9.10 miles in Henderson County, J. B. Hawkins, Charlotte, at \$58,496 for grading; 5.83 miles of asphalt surfacing in Henderson County, Dixon Construction Co., Savannah, at \$75,537; for 18.98 miles in McDowell and Yancey counties, W. H. Anderson Construction Co., Spruce Pine, N. C., is low bidder at \$386,253, but the contract is held in abeyance; for 2.92 miles in Graham County, C. M. Dicus, Bryson City, N. C., is contractor at \$11,130.

In addition to the road contracts, awards were also made to Boox-Boyd & Co., of Raleigh at \$11,872 for an overhead crossing in Wake County and to R. W. Curtis of Lynchburg, Va., at \$14,487 for an overhead bridge in Burke County.

Oklahoma Awards Road Contracts for Over \$800,000.

Oklahoma City, Okla.—Contracts for five road projects totaling nearly twenty-six miles have been awarded by the State Highway Department of Oklahoma at more than \$800,000. These roads include 6 miles between Bartlesville and Ramona, the Hamilton Construction Co., Bartlesville, contractor at \$199,104 not including engineering and contingencies; 7.42 miles between Savanna and Kiowa, Gibson & Mitchell, McAlester, Okla., contractors at \$230,756; 5.66 miles northerly from McAlester, Green-Beekman, Oklahoma City, contractors at \$116,869.

For constructing 3.84 miles east from Hartshorne to the

Latimer County line, Smith Brothers of Dallas, Tex., were awarded contract at \$170,114, and for building 2.93 miles east from Ardmore, W. L. Trotter of Ardmore was awarded contract at \$84,090. All of these roads will be of one course plain cement concrete, 7 inches thick and 18 feet wide.

Virginia Will Invite Bids on 40 Miles of Road and Several Bridges.

Richmond, Va.—The State Highway Commission will open bids July 25 for the construction of 40.47 miles of road in various sections of the State and for building several bridges. An important project for the Richmond territory is the construction of 10.66 miles of gravel road from Providence Forge to Bottoms Bridge. Other projects include 6.27 miles in King William County; 2.10 miles of bituminous macadam in Fauquier County; .89 miles of soil and concrete road south from South Boston; 6.17 miles of bituminous highway extension in Buchanan County; 8.7 miles of similar construction in Dickenson County; 1.41 miles of concrete in Fairfax County; 2.7 miles of grading in Scott County, and 1.57 miles of concrete in Wise County.

Bids will also be opened for a bridge over Diascund Creek, a bituminous macadam approach to an overhead crossing in Rockbridge and Augusta counties, two concrete bridges over streams on the road between Providence Forge and Bottoms Bridge and a bridge over the Roanoke river at Kumis, the latter to be of steel with a concrete floor.

\$250,000 in Paving Contracts at Augusta.

Augusta, Ga.—The Permanent Paving and Civic Improvement Committee of the city council has awarded contracts for paving over three miles of streets here at a cost in excess of \$250,000. W. F. Bowe, Jr. of this city received a contract at \$37,038 to pave Fifth street from Broad to Calhoun street, and at \$16,240 for surfacing Broad street from Milledge Road to Lake View bridge.

Contracts were awarded to the Ely Construction Co. of this city for paving Twiggs street from Telfair to Seventh street at a cost of \$14,944, and for surfacing Savannah Road from Twiggs to Twelfth street at a cost of \$12,853. The Claussen-Lawrence Construction Co. was awarded contract at \$115,896 for paving work on Milledgeville Road and Twiggs street from Seventh to Turpin street, and at \$54,850 for paving upper Broad street from Eve street to Milledge Road.

To Build Ocean Springs Link of Old Spanish Trail.

Pascagoula, Miss., July 7—[Special.]—The Board of Supervisors of this county recently received authority to let contract for building the Ocean Springs link of the Old Spanish Trail which will extend from West Pascagoula river to Washington avenue in Ocean Springs, a distance of 12 miles. The road will be of concrete, 18 feet wide.

The first plan was to extend the road around the Bay of Biloxi, a distance of 8 miles, but the present route shortens the distance between Ocean Springs and Biloxi to three miles. Contract will be awarded July 30.

Proposed Road Work in Kentucky.

Frankfort, Ky., July 7—[Special.]—Plans are being prepared by the State Highway Department for grading and surfacing 5.405 miles of the Hodgenville-Glasgow road in Larue County from Hodgenville to Buffalo. The road will be of gravel, water-bound macadam or water-bound macadam surface treated. Plans are also in preparation for grading and draining 8.56 miles of the Owensboro-Hawesville road in Daviess County, and for grading and surfacing 7 miles of the Falmouth-Newport road in Pendleton County.

Kentucky Invites Road Bids on Construction, Improvement and Surface Treatment for a Total of 125 Miles.

Frankfort, Ky., July 7—[Special.]—The State Highway Commission will receive bids until July 25 at its office here for construction, improvement and surface treatment of roads in various sections of the state, the mileage reaching a total of 125. These roads include 3,390 miles in Oldham County to be surfaced with water-bound macadam or river gravel, or to be surface treated with water-bound macadam; 12.1 miles in Henry, Trimble and Carroll counties of similar construction and treatment and 4,284 miles in Clinton County.

The following roads will be surface treated with bituminous: Boyle County, 4.5 miles; Fayette County, 8.32 miles; Greenup County, 1.5 miles; Harrison County, 9.6 miles; Hart County, 8.535 miles; Hardin County, 2.7 miles; Jefferson County, 2.1 miles; Larue County, 6.407 miles; Madison County, 4.67 miles; 7.5 miles near Richmond; Nicholas County, 4.3 miles; Owen County, 8 miles; 8 miles between Owenton and Gratz; Scott County, 6.9 miles; 3.2 miles from Georgetown north; Todd County, 4.34 miles; Whitley County, 3.69 miles.

For resurfacing with water-bound macadam, there will be 6.1 miles in Garrard County, 5.4 miles in Jessamine County, and 7 miles in Pendleton County, while there will be a reconstruction of 458 feet in Shelby County.

Bids will also be received for the construction of a 100-foot steel span bridge or four 30-foot concrete spans in Rowan County; ten 34-foot concrete spans in Morgan County, and two 34-foot and one 40-foot spans in Kenton County.

Texas Will Vote on Road Amendment.

Austin, Tex.—An election will be held in Texas this month on a constitutional amendment proposed by a joint resolution of the Thirty-Eighth Legislature which provides for the maintenance by the State of the state highways. County funds from automobile licenses which have previously been used for the maintenance of the main highways, may be applied to the lateral road and bridge fund, provided the counties are relieved of the expense of caring for the state highways, which will be determined by the vote on the amendment.

Governor Pat M. Neff has issued a proclamation calling for the election.

Building 16 Miles of Road in Blount County.

Oneonta, Ala.—Bids have been opened by the State Highway Department at its office at Montgomery for the construction of 16.37 miles of chert road, with concrete bridges, in Blount County, between Village Springs and Oneonta. W. C. Hill of Birmingham is the low bidder at \$127,264 for the construction of the road and W. T. Weaver of Collinsville, Ala. is low bidder at \$47,432 for building the bridges.

Assumption Parish Will Build 8-Mile Road.

Napoleonville, La.—The Police Jury of Assumption Parish will receive bids until July 24 at its office here for the construction of a hard surface road from Bayou Lafourche to within two miles of Lake Verret, a distance of over eight miles. The road will be constructed in accordance with plans and specifications in the office of J. C. Watles, Napoleonville, who is the engineer in charge.

Bids for Three Miles of Road.

Pensacola, Fla.—The Board of Commissioners of Escambia County will receive bids until July 18 for building 3.08 miles of the Pensacola-Flomaton road beginning on the south side of Canoe Creek Hill and extending north. The road will be of concrete. Plans and specifications are at the office of the circuit clerk at Pensacola.

Highlands County to Construct Grade.

Sebring, Fla.—The Board of County Commissioners of Highlands County plans to construct grade for a 20-foot roadway about sixteen miles long, from De Soto City Station to a point near Istokpoga Creek, and will receive bids until July 16. Specifications with bidding blanks will be supplied by the Peacock & Hood Engineering Co., Sebring, county engineers.

Bids will cover machine work only and the spreading and shaping of the roadway. The yardage will approximate 85,000.

Bids on Eleven Miles of Road Construction.

Montgomery, Ala.—Sealed bids will be received by the State Highway Department at its office in this city until July 31 for the construction of 11.32 miles of road in Montgomery County between Dublin and Orion. Separate bids will be received on the road work and bridge construction. Plans and specifications are on file at the office of the State Highway Department and information may be secured from W. S. Keller, State Highway Engineer.

Road District Wants Construction Bids.

Shelby, Miss.—Bids will be received on July 16 by the Road Commissioners of Shelby Separate Road District for sub-grading, unloading, hauling gravel, spreading and rolling on about 35 miles of road. George B. Shelby, C. T. Jacobs and L. B. Wilkinson are the commissioners.

A Birmingham Patent for Coal Handling in Use All Over United States.

Birmingham, Ala., July 9—[Special.]—The largest Ramsay rotary dump for handling coal in mines is being constructed by the H. C. Frick Coke Company in its Lemont mines, Pennsylvania. Two machines are being put in, each capable of handling at one time and without uncoupling the mine cars, 35 cars with a daily capacity of 10,000 tons each dump.

The plan is to place the dumps inside the mines and turn the coal onto belt conveyors to be carried two miles underground to the Monongahela river and thence by barges to the Calirton by-product ovens. At the latter place another big battery of ovens is being constructed, the intention being to materially increase the coke production. Erskine Ramsay is an executive officer of the Pratt Consolidated Coal Company, one of the largest independent coal producing companies here. He is also an officer in the New Castle Coal Company, and other industrial and mercantile concerns of this district, being one of the industrial leaders in this region. He patented the rotary dump in 1900 and the first one was manufactured in the Linn Iron Works here, a plant of the Tennessee Coal, Iron & Railroad Company, of which concern Mr. Ramsay was chief engineer at that time. The first dump was tried at the Smythe ore mines in this district and at present Mr. Ramsay is drawing royalties from 135 of the dumps, the patent being used in all states of this country where there is any kind of mineral development, as well as in salt mines, sugar making plants where beets are used and elsewhere. The largest rotary dump prior to the one now being constructed for the Frick Coke Company was at Snowden Coke Company's mines at Brazwell, Pa., the dump there handling 26 cars at the time.

Records at the office of Mr. Ramsay show that his patent is being used in Alabama, Tennessee, Kentucky, Pennsylvania, Illinois, Kansas, Wisconsin, Mexico, Virginia, West Virginia, California, Washington, Ohio, Michigan, Oklahoma, Wyoming, Missouri, New York, and in India. The list of products handled over rotary dumps are: iron ore, charcoal, beets, coal, rock, limestone, silver ore, copper ore, lead ore, gypsum, salt.

TEXTILE

Absenteeism in Indian Cotton Mills.

Manchester, England, June 19—[Special.]—Very few United States spinners and manufacturers realize the difficulties with which the mill managers in India have to contend with regard to absenteeism in the cotton mills. The most remarkable feature of the employment figures for India for the month ended March was the great increase in absenteeism which was specially marked in the cotton mill industry. The mills report that it was due to a large number of workers having proceeded to their villages after the receipt of the bonus which was paid in January, and owing to the holidays.

The average absenteeism in the cotton mills was 25.4 per cent as compared with 10.7 per cent in the previous month, and 8.18 per cent two months ago. That is the largest figure recorded since monthly data have been collected by the India Labour Office. It is reported by the Ahmedabad Mill-owners' Association that high wages have attracted large numbers of unskilled operatives and the supply of that class of labor has continued to be in excess of the demand.

Mill Purchased—To Install 3000 Additional Spindles.

Selma, Ala.—Negotiations incidental to the transfer of the plant of the Selma Manufacturing Co. to J. R. Millar of Oakland, Cal. have been concluded and the mill will be known hereafter as the Alabama Mill. It is at present equipped with about 11,000 spindles, but it is stated that 3000 additional spindles will be installed at once. The transfer includes all lands, buildings, machinery and equipment, the purchase price, it is understood, being \$225,000.

Under the new management, J. E. Hendrix will become resident manager and J. A. Ward will be auditor or secretary of the company.

Contract Awarded for Micolos Cotton Mill.

Opp, Ala.—Contract has been awarded by the Micolos Cotton Mills to Algernon Blair, of Montgomery, for the erection of its proposed plant here which will be located about one-eighth of a mile west of the Opp Cotton Mills. The plant will be owned and operated by C. H. Cole, C. W. Mizel and Mrs. J. A. Douglas, and construction will begin immediately.

The new mill will have an initial installation of 7200 spindles and 190 looms, machinery having been purchased. Robert & Co., Inc., of Atlanta, are the engineers in charge of construction.

May Acquire Model Mill.

In connection with recent reports concerning the management of the Model Mills, an enterprise connected with the Textile Industrial Institute at Spartanburg, S. C., E. E. Child, of Whitmire, S. C., advises the MANUFACTURERS RECORD that he has made an offer for the property provided certain plans and conditions are met in connection with a reorganization of the Textile Institute as well as the mill property. Mr. Whitmire states that he has devoted considerable time to the proposition but it is too soon to say what the ultimate outcome will be.

Promoting Dyeing and Finishing Plant at Waco.

Waco, Tex.—Plans for the erection of a textile dyeing and finishing plant here are being promoted by a committee of which Albert T. Clifton is chairman, and W. W. Woodson, J. P. Henderson, and G. H. Penland members. The proposed mill will have a capacity for finishing 100,000 yards per day. It is said outside capital will be interested in the new enterprise which is expected to greatly stimulate the textile industry in the state.

Outlook for Texas Cotton.

Austin, Tex., July 9—[Special.]—Many thousands of acres of growing cotton in the western part of Texas have been destroyed by grasshoppers during the last three weeks and the ravages of the pest are spreading. It is asserted, however, by entomologists that the pest will soon pass away and that the worst of the visitation is over. H. N. Schutz, crop statistician for Texas of the United States Department of Agriculture, in a report just issued, estimates that the cotton production of this state this season will be approximately 3,910,000 bales. Conditions are 77 per cent normal. The acreage is 14,077,000, which is 15 per cent increase over last year's acreage. The report is as follows:

"The growing condition of the cotton crop in Texas remains unchanged since the report of a month ago. The condition is better than in any of the other important States in the cotton belt.

"It is usual for the crop to improve during June; in fact, only twice in 1917 and 1919, of the past decade, has cotton shown a lower condition on June 25 than on May 25 in Texas. The 10-year average for June 25 is 78; the present condition of the crop is 77 per cent.

"As was indicated earlier in the year, the acreage planted to cotton has shown a substantial increase and more land is devoted to this crop in the State this year than ever before in its history. With 12,241,000, June 25, 1922, and 11,874,000 picked, the preliminary acreage report for this year indicates an increase of 15 per cent in the acreage now standing. A considerably larger area was planted, but due to cutworms, grasshoppers, floods, rains, windstorms, many acres were abandoned altogether or replaced with feed crops. It is estimated that the acreage standing totals 14,077,000 acres, which with a condition of 77 per cent, forecasts a production of approximately 3,910,000 bales of 500 pounds gross weight providing that average conditions prevail until picking time."

Purchase of Victor Monaghan Mills Planned.

Greenville, S. C.—Stockholders of the Victor Monaghan Mills have been advised that negotiations are pending for the purchase by A. M. Law of Spartanburg and W. J. Thackston of Greenville, of all the common stock of the company. Messrs. Law and Thackston are said to represent other interests as well as their own. The Victor Monaghan Mills operate plant of the Victor and Greer mills at Greer and the Appalache mills near Greer; the Monaghan mills at Greenville. Walhalla mills at Walhalla, the Wallace mills at Jonesville and the Ottaray mills at Union. These plants have a total spindleage of nearly 250,000.

The company has \$6,500,000 of common and \$1,400,000 of preferred stock. Thomas M. Merchant is the president.

Textile Mill Notes.

The Rocky Mount Manufacturing Co. will erect a one-story extension to its cotton mill at Rocky Mount, N. C. Lockwood, Greene & Co. of Boston and Atlanta are the engineers.

The United States Finishing Co., of New York, Henry B. Thompson, president, is reported to have acquired the plant of the Blue Springs Dyeing & Finishing Co., at Cedartown, Ga.

J. E. Douglas of Guthrie, Okla. and O. O. Owens of Tulsa plan to build a cotton twine mill at Muskogee, Okla. at a cost of \$125,000. The new enterprise has the support of the Muskogee Chamber of Commerce.

The Aldora Cotton Mills are improving their plant at Barnesville, Ga., involving betterments to the factory buildings, erection of tabernacle which is in course of construction and the erection of twelve cottages which have already been completed. H. Y. McCord, of Atlanta, is the president of the company.

LUMBER AND BUILDING MATERIALS

Lumber Movement in Summer Dullness.

Washington, July 6—There were further seasonal recessions in the nation's lumber movement in the week ended June 30, according to reports from 385 of the leading mills of the country as compared with 422 mills the week before, says the National Lumber Manufacturers Association, but they were about what the customary seasonal curve would indicate. At the same time it is noteworthy that production and shipments were larger than for the corresponding week of 1922, though new business was somewhat less.

For all of the reporting mills shipments were 91 per cent and orders 69 per cent of production; for the Southern pine mills these percentages were 91 and 76, respectively, and for the West Coast mills 105 and 75. The 347 mills reporting their normal production, give their actual production as 108 per cent of normal and shipments 101 and orders 77 per cent thereof. Unfilled orders for the Southern pine mills were 256,518,000 feet (134 mills) as against 268,119,818 at the end of the preceding week; for West Coast mills (122) unfilled cargo orders were 211,118,981 and unfilled rail trade orders 5745 cars as compared with 232,505,598 feet and 6895 cars, respectively for the preceding week.

The Southern Pine Association of New Orleans, wires that the new business of Southern pine mills increased 5 per cent, production 10 per cent and shipments 15 per cent as compared with the previous week. Out of 76 mills reporting running time, 55 operated full time, including 6 working over time.

The West Coast Lumbermen's Association of Seattle, telegraphs that on account of the Fourth of July the number of mills reporting is smaller than usual, but that the production for those reporting was 24 per cent above normal, new business 25 per cent below production and shipments 40 per cent above new business. Of all the new business taken during the week 36 per cent was for future water delivery, amounting to 28,781,754 feet, of which 20,494,754 feet was for domestic cargo delivery and 8,287,000 export business. New business by rail amounted to 1552 cars. Forty per cent of the week's lumber shipments moved by water, amounting to 45,691,822 feet, of which 34,315,489 moved coastwise and intercoastal and 11,376,333 overseas. Rail shipments totaled

2072 cars. In the first twenty-six weeks in the year reported production has been 2,591,919,547 feet, new business 2,671,446,123 and shipments 2,849,339,204.

The California Redwood Association telegraphs from San Francisco that production is holding up, shipment conditions are favorable and the demand continues excellent in all sections.

The following table records the lumber movement for last week, the corresponding week of 1922 and the preceding week of 1923:

	Past Week	Corresponding Week 1922	Preceding Week 1923 (Revised)
Mills	385	346	422
Production	261,887,887	213,026,471	284,092,604
Shipments	238,716,310	229,911,986	252,339,181
Orders	180,939,467	197,471,328	206,985,518

Compared with the first 26 weeks of 1922 the lumber movement for the same period of 1923 is as follows:

	Production	Shipments	Orders
1923	6,308,735,795	6,629,525,782	6,597,302,168
1922	5,243,018,589	5,342,398,383	5,723,659,529
1923 Increase ...	1,065,717,206	1,287,127,399	873,642,637

Decrease in Brick Orders—Price Stable.

Current reports from brick manufacturers from all parts of the country show that there is a general decrease in orders on books, states the Monthly Digest of the Common Brick Manufacturers' Association of America. Only two districts show gains over the previous month, the others ranging from 25 to 50 per cent below the record of May 1. The price remains stable. The falling off in new business is regarded as largely seasonal. Continuing, the report says:

"The cost of bricklayer labor is the target for considerable unfriendly comment in the newspapers, but invariably in the sections where there is much building the bricklayer's pay is fixed by the contractor who bids above the union scale. Wherever there is much building all skilled craftsmen are getting more than their demand. There is no complaint of bricklayer production. The men everywhere are apparently giving a good day's work. But due to the fact that the day's work of the bricklayer can readily be expressed in the form of a unit of work—brick laid per day—a unit easy to check and easy to discuss, his production is too often mentioned in a deprecatory way by those who are dissatisfied with building labor in general, and who want to give point to their contentions by referring to specific examples. In nine cases out of ten the bricklayer will be mentioned owing to

LUMBER MOVEMENT FOR TWENTY SIX WEEKS, AND FOR THE WEEK ENDING JUNE 30.

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association:						
Total	1,944,000,464	1,839,308,002	2,053,736,494	1,883,058,613	1,957,003,446	2,009,629,154
Week (134 mills)	76,351,673	77,055,191	69,730,872	58,718,125	58,130,038	78,056,875
West Coast Lumbermen's Ass'n:						
Total	2,591,918,916	2,112,403,422	2,849,175,805	2,082,971,129	2,671,411,160	2,132,323,720
Week (122 mills)	107,563,744	86,360,753	113,303,289	95,278,126	80,793,221	80,954,273
Western Pine Mfrs. Association:						
Total	676,898,000	473,998,000	688,035,000	610,116,000	637,800,000	659,925,000
Week (41 mills)	39,165,000	20,805,000	27,172,000	21,399,000	20,375,000	16,525,000
Calif. White & Sugar Pine Mfrs.:						
Total	315,176,000	147,570,000	257,465,000	138,050,000	625,789,000	276,770,000
Week (5 mills)	3,914,000	6,527,000	2,123,000	3,518,000	2,381,000	3,580,000
Calif. Redwood Association:						
Total	226,957,000	188,942,000	239,202,000	178,711,000	247,514,000	183,223,000
Week (15 mills)	11,263,000	4,089,000	8,203,000	2,939,000	7,088,000	1,143,000
North Carolina Pine Association:						
Total	238,823,615	220,742,138	254,714,783	206,772,674	201,533,662	215,368,655
Week (45 mills)	7,337,670	6,106,271	7,690,049	6,650,173	5,206,210	6,233,180
Northern Hemlock & Hardwood:						
(Softwood) Total	65,473,000	50,535,000	69,045,000	67,616,000	63,757,000	67,055,000
Week (12 mills)	1,988,000	841,000	1,685,000	2,052,000	1,224,000	1,369,000
Northern Pine Mfrs. Association:						
Total	249,488,800	209,520,027	218,151,700	175,972,967	192,493,900	179,365,000
Week (11 mills)	14,304,800	11,242,256	8,809,100	11,357,562	5,742,000	9,610,000
General total for 26 weeks:						
(Softwood)	6,308,735,795	5,243,018,589	6,629,525,782	5,342,398,383	6,597,302,168	5,723,659,529
Northern Hemlock & Hardwood:						
(Hardwood) 26 weeks	86,363,000	.....	75,596,000	.....	69,889,000	.....
General Total for Week	261,887,887	213,026,471	238,716,310	229,911,986	180,939,469	197,471,328

his easily measurable unit of work. But most people fail to remember that the bricklayer in common with all other crafts, now works eight hours per day instead of ten; and that the record amount of brick laid per day which sticks in their memories was probably laid in a wall thicker than walls are built today, and the thicker the wall the faster the brick are laid. Nobody could expect the same number of brick to be laid per day in, say, a dwelling house wall eight inches thick by a bricklayer working eight hours a day, as in a thicker wall by a bricklayer whose day was ten hours and even more. Brickwork goes up fast, and it is after the bricklayer is through that very often the job begins to drag.

"It would be interesting to hear a layman try to check or discuss a fair unit of work to be done in a day by a carpenter, or a plasterer, or a plumber, electrician, or any of the other trades employed on a building. It is an important fact that the average cost of the brickwork in all types of buildings rarely is more than 10 per cent of the entire cost of the building."

Weekly Report on Southern Pine.

The Southern Pine Association for the week ended June 29 reports as follows on 134 mills:

	Cars	Feet
Orders on hand beginning of week	12,781	268,119,818
Orders received during week	2,771	58,130,038
Total	15,552	326,249,856
Shipments during week	3,324	69,730,872
Orders on hand end of week	12,228	256,518,984

Production for the week was 76,351,673 feet. Shipments were 6,620,801 feet below production or 8.67 per cent, and orders were 18,221,635 feet below production or 23.87 per cent. Orders were 16.64 per cent or 11,600,834 feet below shipments. The week was 8.56 per cent or 7,148,760 feet below normal production and orders were 30.38 per cent or 25,370,395 feet below normal production. The decrease in orders on hand amounted to 11,600,834 feet or 4.33 per cent.

North Carolina Pine Report.

The North Carolina Pine Association reports as follows on 45 mills for the week ending June 30:

	Total Feet	Average per Mill Feet
Orders	5,206,210	115,700
Shipments	7,690,049	170,889
Production	7,337,670	163,059
Normal Production	12,744,000	283,200

The orders were 32 per cent below shipments, 29 per cent below actual production and 59 per cent below normal production. Shipments were 5 per cent above actual production and 39 per cent below normal production. Actual production was 42 per cent below normal. The week shows an increase in orders of 436,460 feet or 8 per cent.

Urge More Money for Eastern National Forests.

Washington, July 6—The National Lumber Manufacturers Association, has written the Director of the Budget, to urge that the former annual appropriation of \$2,000,000 be restored in the budget hereafter for the purchase of national forest lands in the East, under the terms of the so-called Weeks' Law, of 1911. Purchases of forest lands are authorized by this act, but in recent years the area annually acquired has been small because of limited appropriations. The plan of the National Forest Reservation Commission is to acquire not less than 7,000,000 acres on the watersheds of the Appalachians, but so far only 2,000,000 acres have been bought in twenty-three different units.

Receiver for Tallulah Falls Railway.

Joseph F. Gray, according to a report from Gainesville, Ga., has been appointed receiver for the Tallulah Falls Railway, the petition for the receivership having been filed, it is stated, on behalf of the Southern Railway Co., which claims that it is a creditor for the sum of \$1,155,472 on account of interest unpaid on bonds, etc. An effort will be made to enable the line to keep down expenses within its income. The road is 57 miles long from Cornelia, Ga., to Franklin, N. C.

MECHANICAL

Huge Steam Shovel on Traction Wheels.

In the picture herewith is shown one of the heaviest of railroad type steam shovels on traction wheel mountings, the Osgood Company, Marion, Ohio, manufacturers of excavating machinery, steam shovels, dipper dredges, etc., having recently built and successfully tested these mountings on one of their 120, six cubic yard shovels, which is, they say, the largest railroad type machine built and heretofore mounted only on standard railroad trucks.

The development of this mounting for the heaviest shovels was in consequence of the delay caused by laying railroad track to move shovels from one point to another. A shovel of this size is much used in large rock quarries and in open



ONE OF THE BIG SHOVELS AT WORK.

mines. Consequently, when blasting was done it was usual to lay track and move the shovel away from the charge and then back again after the blast. This track laying lost much time and labor so huge traction wheels were designed, measuring six feet in diameter with a tread of three feet on the front or driving wheels and two feet six inches on the back wheels. Operation of the front wheels is done by means of gears from the powerful hoisting engine of the shovel and steering is accomplished by turning the back wheels with a screw shaft and a traveling nut. This shaft is operated by a separate reversible steering engine. Steering is by means of lever from the engineer's position in the front of the cab.

It is stated that in a big stone quarry in Pennsylvania the shovel was moved in one day for a distance which under the old track laying process would have required at least ten days. Besides, the traction mounting eliminates the need for pit men and for using jack arms. This is alone a great saving. Side strains are lessened as well as racking of the machine generally.

The shovel illustrated is 85 feet long and 20 feet wide over all. It is 15 feet high over the cab and the boom extends to a height of 32 feet. A large stone company near Chicago put in a 73, 3½ cubic yard shovel in a quarry about 80 feet deep and it was readily backed into the pit under its own power. Later the shovel was used to put back on a track some loaded dump cars and it soon returned to work. The mountings are also supplied to shovels of other dimensions.

A meeting of the stockholders of the Monongahela West Penn Public Service Co. will be held at Fairmont, W. Va., on July 31 to consider an increase in the authorized capital stock of the company from \$20,000,000 to \$30,000,000. Of the authorized total of \$30,000,000, common stock will represent \$15,000,000 and preferred stock the remainder.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Bridges, Culverts and Viaducts.

Ala., Birmingham—Jefferson County let contract to Reid & Lowe, Birmingham, at \$18,419, for bridge on Pratt City road, near East Thomas. Address Board of Revenue.

Ala., Jasper—State Highway Comsn., Montgomery, Ala., opened bids for construction of bridge in Walker County. Newell Construction Co., Birmingham, Ala. lowest bidder at \$76,696.54. (Lately noted.)

Ala., Marion—State Highway Comn., Montgomery, Ala. opened bids for construction of bridge in Perry County; Sam B. Boyd, lowest bidder at \$17,732.29. (Lately noted.)

Ala., Montgomery—Details under Road and Street Construction.

Ala., Tuscaloosa—Tuscaloosa County plans repairing old bridges and building 4 concrete and 3 steel bridges; \$22,000 appropriated. Address County Board of Revenue.

Fla., Clearwater—Pinellas County Comrs. receive bids until August 14 to furnish necessary materials, equipment and labor to construct 7 concrete deck girder bridges, 10 concrete flat slab bridges and 1 creosoted timber bridge built in connection with 25 ft. single leaf steel lift span. Following are approximate quantities 38,000 cubic yds. of dredged embankment, 2200 cubic yds. of Class A concrete, 560 cubic yds. of Class B concrete, 225,000 lbs. of reinforcing steel, 7700 lin. ft. of wood foundation piles, 400 lin. ft. of concrete piles, 12,000 lin. ft. of creosoted timber piles, 1132 lin. ft. of concrete railing, 375,000 F. B. M. creosoted timber Bulkheads, 65,000 F. B. M. creosoted timber for bridges, C. E. Burleson, County Eng.

Fla., De Land—Volusia County will build 13 reinforced concrete and 21 vitrified pipe culverts and 9 timber trestle bridges. Details under Road and Street Construction.

Fla., Fort Pierce—Fort Pierce Finance & Construction Co., let contract to Globe Dredging Co., New Jersey, at \$400,000 for bridge and causeway across Indian River at Fort Pierce, and for excavation of ship channel and turning basin; causeway to extend about 1½ mi. from near Norway Ave. to Faber's Point. (Lately noted.)

Fla., Sulphur Springs Sta., Tampa—State Road Dept., Tallahassee, Fla., received low bids from Robert Mugge Co., Tampa, at \$67,125, for bridge over Hillsborough River at Sulphur Springs; Wm. F. Cooke, State Highway Engr. (Lately noted.)

Ga., Atlanta—City let contract to Paul Weskey, at \$11,785, for concrete bridge on Elkmont Drive, North Boulevard Park; J. N. Landers, City Pur. Agt.

Ga., Macon—Central of Georgia Ry. Co., C. K. Lawrence, Ch. Engr., Savannah, plans building 500 ft. steel girder bridge over Ocmulgee River.

Kentucky—State Highway Comn., Frankfort, Ky., will receive bids until July 25 for 4 bridges as follows:

Federal Aid Proj. No. 67, Rowan County, 100 ft. steel or four 30 ft. concrete spans, on Morehead-Grayson road, over Triplett Creek; No. 95, Morgan County, 2 sections; five 34 ft. concrete spans over Blackwater and Grassey Creeks, on West Liberty-Frenchburg road; No. 62, Kenton County, two 34 ft. and 40 ft. concrete spans over Bank Lick Creek, on Independence-Falmouth road; Joe S. Boggs, State Highway Engr.

La., Baton Rouge—East Baton Rouge Parish receives bids until July 10 for 3 concrete culverts on Greenwell Springs road, at Morgan Place, known as Black Bayou, at Pesta Place, and at Baker Place; F. A. Woods, Sec. Police Jury.

Miss., Meadville—Franklin County plans building 6 bridges as follows: 3 of steel, over McCall's and Harves Creeks, and Homochitto River, and 3 piling bridges over Middle Fork and Cameron's Creek, and Gulce Branch; contemplates \$35,000 bond issue. Address Board of Supvrs.

Miss., Oakland—State Highway Dept., Jackson, Miss., let contract to Vincennes Bridge Co., Vincennes, Ind., at \$16,000 for 100-ft. truss with timber approach over Yocona River.

Miss., Vicksburg—Warren County will build 4 bridges. Details under Road and Street Construction.

Missouri—State Highway Dept., Jefferson City, Mo. plans building 6 bridges as follows: Barton County, state project Route 1 on State road Golden City to Lamar Boone County, Federal Aid Project, Route 229, Sec. 2 on State Road, St. Louis to Kansas City; Callaway County State Project, Route 7, Sec. 42 on State road, Jefferson City to Columbia; Howard County, Federal Aid Project, on State Road, St. Louis to Kansas City, Route 229, Sec. 2, and Route 235, Sec. 2, Iron County, State Project, Route 49 on State Road, Annapolis to Des Arc. B. H. Piepmeyer, Chief Eng., Jefferson City, Mo.

Mo., St. Louis—City will receive bids until July 24 for reinforced concrete culvert, to carry Delmar Blvd. over River des Peres; plans, etc., from Pres. Board of Public Service.

North Carolina—State Highway Comn., Raleigh, N. C., let contracts for 2 bridges as follows:

484B—Wake County, overhead crossing S. A. L. Ry., near Millbrook on Route No. 50, to Boox-Boyd & Co., Raleigh, at \$11,872.90; S11B—, Burke County, overhead bridge near Calvin over Southern Ry., Route No. 10, low bidder, R. W. Curtis, Lynchburg, Va., at \$14,487.40; Frank Page, Chmn., Highway Comn.

N. C., Raleigh—Wake County plans building 100-ft. wooden bridge across Mark's Creek at Franklin County line; Wake County to pay two thirds and Franklin County one third; Franklin County will also build extra

abutments on its side. Address County Comms.

Okla., Bartlesville—State Highway Dept., Oklahoma City, Okla., receives bids until July 11 for 1276 ft. reinforced concrete arch bridge and approach over Caney River, near Bartlesville, Washington County, Federal Aid Proj. No. 101; plans, etc. from Fred. G. Simmons, State Highway Engr.,

Okla., McAlester—State Highway Dept., Oklahoma City, Okla., let contract to Gibson & Mitchell, Pauls Valley, Okla., at \$17,087.94 for 5 reinforced concrete bridges on road between Savanna and Kiowa; R. J. Bates, Engr. in charge, McAlester, Okla. (Lately noted.)

Okla., Union—State Highway Dept., Oklahoma City, receives bids until July 11 for approaches and fills at Meridan Highway Bridge across South Canadian River, south of Union; John Stanley, Canadian County Commr.

S. C., Charleston—Charleston County Sanitary and Drainage Comsn., 39 Broad St., receives bids until August 14 to construct steel and concrete bridge over Ashley River, on State Highway No. 6. Work consists of 1733 ft. steel and concrete bridge, including 166 ft. double leaf Strauss bascule span, with 34 ft. roadway and two 4½ ft. sidewalk. Proposal No. 1 consists of Bascule span superstructure and approaches having 20 concrete girder spans 60 ft. to 76 ft. on concrete substructure, approximate quantities, 18,480 cubic yds. of Class AA concrete, 1,570,000 lbs. reinforcing steel, 52,600 lin. ft. of 16 in. sq. concrete piles, 4860 lin. ft. 18 in. sq. concrete piles, 5900 sq. yds. roadway paving, 3000 tons riprap; Proposal No. 2 consists of bascule span superstructure and approaches with 15 steel deck plate girder spans, 80 and 100 ft. with concrete floor on concrete substructure, approximate quantities 3,400,000 lbs. structural steel, 348,000 lbs. reinforcing steel, 11,680 cubic yds. Class AA concrete, 110,000 lbs. castings 59,000 sq. yds. of roadway paving, 39,500 lin. ft. 16 in. sq. concrete piles, 4860 lin. 18 in. sq. concrete piles, 3000 ft. riprap.

Bascule span superstructure contains following approximate quantities: 756,800 lbs. structural steel, 144,800 lbs. machinery and casting, 480 cubic yds. counterweight concrete, 34 M. B. M. creosoted timber and electrical operating equipment complete.

S. C., Florence—Florence County plans expending \$50,000 to \$60,000 for concrete and steel bridge on road from Florence to Lake City, over Lynch's River. Address County Comms.

S. C., Spartanburg—Spartanburg County will re-let contract July 10 for filling of abutments to bridge across North Tyger River, on road from Holly Springs Church to Hanon Place; J. J. Vernon, County Supvr.

S. C., Union—Union County will receive bids until July 17 for 2 reinforced concrete bridges near Union as follows: on State Highway No. 19, between Union and Spar-

tanburg over Fair Forest Creek; on State Highway No. 11 on road to Gaffney, over Rocky Creek; plans, etc., from W. B. Deneen, County Engr., Union, and from State Highway Engr., Columbia, S. C.

Tenn., Loudon—Loudon County plans completing steel bridge over Tennessee River on Lee Highway above ferry, between J. L. Lutz Mfg. Co.'s plant and Riverside Cemetery; voted \$125,000 bonds; G. G. McClure, Res. Engr.

Tex., Canadian—Hemphill County let contract to Austin Bros. Bridge Co., Dallas, Tex., at \$21,875, for 150 ft. bridge over Waschita River on State Highway No. 4; R. E. Spiller, County Engr.

Tex., Coleman—Coleman County let contract to D. H. Buchanan & J. H. Veazey, Temple, Tex., at \$15,695.16 for reinforced concrete bridges and culverts on 5.87 mi. State Highway No. 7-A; W. E. Dickerson, County Engr.

Tex., Colorado—Mitchell County let contract to Brown-Abbott Construction Co., Lorraine, at \$20,885, to extend reinforced concrete bridge across Lone Wolf Creek; Frank F. DuBose, Res. Engr.

Tex., Crockett—Hurricane Shoals Bridge Co., lately noted incorporated with \$25,000 capital, with Mose Bromberg, Pres., will construct steel bridge across Trinity River at Hurricane Shoals 14 mi. from Crockett; cost \$25,000; Fred E. Hess, Eng., 310 Medical Arts Bldg., Dallas, Tex.; address proposals to Jno. C. Mallar, Secy., Crockett, Tex.

Tex., El Paso—El Paso County will receive bids soon to build two 20 ft. wagon bridges, at Fabens and Tornillo; L. A. White, County Engr.

Virginia—State Highway Dept., Richmond, Va. received low bids for construction of 6 bridges as follows:

Route 11, Russell County, 4 bridges over Little Cedar Creek between Lebanon and Hansonville, R. H. Bolling, Norton, Va. at \$29,425.82.

Route 12, Patrick County, bridge over Spoon Creek Va., R. W. Curtis, Lynchburg, Va. at 13,726.35.

Route 32, Mecklenburg County, bridge over Grassy creek near Clarksville to Pittsburg-Des Moines Steel Co., Richmond at \$9612.88. (Lately noted.)

Virginia—State Highway Comm., Richmond, Va., will build 4 bridges and approach. Details under Road and Street Construction.

Va., Portsmouth—Details under Road and Street Construction.

Va., Pounding Mill—Tazewell County let contract to Al Baldwin for concrete bridge over Clinch River at Pounding Mill. Address County Commrs.

Va., Yorktown—York County will receive bids until Aug. 2 for concrete bridge at Harwood's Mill Reservoir; plans, etc. from Floyd Holloway, Clk., Board of Supvrs.

W. Va., Charleston—Kanawha County plans constructing 4 bridges in County, and purchasing Kanawha City bridge at east end of Charleston; contemplates voting Aug. 7 on \$1,500,000 bonds. Address County Commrs. (Lately noted.)

Canning and Packing Plants.

Fla., Lakeland—South Citrus Products Co. will erect \$35,000 plant.

S. C., Columbia—Carolina Canning Co., capital \$15,000, incorporated with L. H. Haroin, Pres.; A. L. Luce, Sec.-Treas.

Clayworking Plants.

Va., Big Stone Gap—Big Stone Gap Brick and Tile Co., previously noted incorporated with \$100,000 capital, W. W. Taylor, Pres., will soon begin construction of brick plant.

Coal Mines and Coke Ovens.

Ga., Augusta—Hill Coal Co., incorporated by Z. S. Sikes, George Farrar, W. A. Johnson, Johnson.

Va., Big Stone Gap—Sandy Ridge Coal Corp. (lately noted chartered with \$350,000) organized with J. W. Gerow, Pres.-Treas., Nora, Va.; R. T. Irvine, Sec., Big Stone Gap; have leased 1080 acres coal land in Dickenson County; will lay about 5 mi. standard gauge railroad from C. C. & O. Ry. to mines; build mining camp; contemplated output from 500 to 1000 tons daily.

Va., Danville—Harris Coal Co., capital \$25,000, incorporated with C. E. Harris, Pres.; E. S. Harris, Sec.

W. Va., Fairmont—Hutton-Beale Coal Co., capital \$50,000, incorporated by Ernest Hotton, W. N. Beale, E. A. Murray.

Concrete and Cement Plants.

Md., Baltimore—Cinder Block Corp., 1102 Lexington Bldg., capital \$100,000, incorporated with Chas P. Minning, Pres.; H. G. Porter, Sec., will erect 50 x 150-ft. building, part mill construction, remainder cinder blocks, fireproof; cost \$15,000; install concrete block machinery; daily output approximately 3000 cinder building blocks.

Tenn., Lenoir City—Roy G. Wallace, S. P. Witt and others interested in establishing \$1,000,000 Portland cement plant.

Cotton Compresses and Gins.

Ala., Dadeville—William Gray, Jr. and W. C. Stone have purchased equipment for nine 70-saw gins.

Mo., Morehouse—Wm. Crumpecker will erect four stand 80-saw airblast cotton gin.

Miss., Hattiesburg—Cotton States Oil Co., capital \$150,000, incorporated by R. D. Moore, Dr. J. G. Donald and others.

Mo., Sikeston—Sikeston Gin Co., P. M. Gervig, Sec., let contract to Frank Heisler, to erect iron clad cotton gin, daily output 40 bales; cost of building \$6500; cost of cotton ginning machinery \$15,000. (Lately noted.)

Okla., Minco—Prairie Cotton Oil Co., J. A. West, Mgr. will construct cotton gin.

Tex., Canadian—Canadian Cotton Gin Co. lately noted incorporated with E. Cook, Pres. will erect cotton gin with daily output 20 bales; ordinary construction containing three 70-saw outfits; John Daniels, Constr. Engr.; Continental Gin Co., machinery contractors; construction begun.

Tex., Colorado City—Farmers' Gin Co. increased capital from \$12,825 to \$50,000.

Tex., Houston—Houston Compress Co., J. V. Scott, V. P., increased capital from \$600,000 to \$2,000,000; has under construction plant with storage capacity approximately 10,000 bales of cotton; pressing capacity 6000 bales daily.

Tex., Olmito, P. O. Brownsville—Olmito Gin Co., capital \$15,000, incorporated by F. B. Sublet, T. P. Bowen, E. Hodby.

Tex., Quanah—Rotes Gin Co., capital \$9,000, incorporated by L. T. Lewis, Fred Henderson, L. M. Davis.

Va., Petersburg—Ritchie and Rainey will install 80-saw cotton gin.

Cottonseed-Oil Mills.

Ark., Little Rock—Dixie Cotton Oil Co., capital \$1,600,000, incorporated by W. F. Bridewell, of Little Rock; W. O. Scroggins of Morrilton, Ark.; D. D. Adams, of Batesville, Ark.; will take over three mills formerly operated by Morrilton Cotton Oil Co., at Little Rock, Searcy, and Morrilton and one at England, Ark., formerly operated by American Cotton Oil Co.; in addition to these four mills the company will operate 20 gin units throughout the cotton section of the state.

La., Shreveport—Caddo-De Soto Cotton Oil Co., capital \$400,000, incorporated with J. R. Brown, Pres.; J. W. McClendon, Sec., Waco, Tex.; formed by merger of Henderson Cotton Oil Co. and Caddo Cotton Oil Co., of Shreveport, La., De Soto Cotton Oil Co., of Mansfield, La., and Homer Cotton Oil Co. of Homer, La.

Tex., Whitesboro—Whitesboro Oil Mill, capital \$100,000, incorporated by J. C. Whaley, H. Rosenstein, James Beattie.

Drainage and Irrigation

Fla., New Smyrna—Turnbull Drainage Dist. appointed C. M. Rogers, Ch. Engr., Daytona, of district, plans reclaiming approximately 20,000 acres land located west of New Smyrna and Oak Hill.

Ky., Owensboro—Favless County Comm. let contract to J. D. Church at \$90,000 to construct Rhodes Creek drainage project; work includes 450,000 yds. earth excavation, 124 acres clearing, building 14 wooden bridges requiring 50,000 ft. lumber and 4 steel bridges; reclaiming 10,000 acres land. (Lately noted.)

La., Baton Rouge—Montecian Drainage Dist. Commrs., W. M. Evans, Pres., organized to provide additional drainage facilities for about 3000 acres land in the neighborhood of North Highlands, Brookstown and suburbs, Greaud and Loudon.

Mo., Kansas City—Details under Land Developments.

N. C., Charlotte—Mecklenburg Drainage Comm., Jas. R. Alexander, Chmn., will construct drainage ditches, floating dredge work; estimated cost \$12,000; reclaiming approximately 1521 acres land in Mecklenburg County; open bids Aug. 6.

Tex., Harlingen—Cameron County Water Improvement Dist., No. 1, C. P. Bobo, Pres., will receive bids until Aug. 1 to construct drainage system through northern part of Cameron County work includes approximately 300,000 cu. yds. excavation; estimated cost \$27,000; plan and specification on file.

Electric Light and Power Plants.

Ala., Birmingham—S. M. Bernheim Electric Co., incorporated by S. M. and Louis Bernheim, and others.

Ala., Birmingham—Alabama Power Co. petitioned Public Service Commn. for permission to sell \$6,000,000 of first mortgage bonds.

Ala., Prattville—Alabama Power Co., Birmingham, granted permission by Alabama Public Service Comm. to purchase electric distribution system of Autauga Oil & Fertilizer Co.

Fla., Bushnell—City voted \$15,000 bonds to improve electric light system. Address The Mayor.

Fla., West Palm Beach—Southern Utilities Co., C. H. Ellis, Mgr., will install 3000 kw. turbine with necessary auxiliaries and a 500 h.p. boiler; will also extend line on S. Olive St.

Ky., Paducah—Paducah Electric Co., will begin construction about August 1 on \$370,-

000 power plant to ultimately supply Paducah with 10,000 k.w.; plant will be constructed of steel and brick with modern turbines and generating machinery and will be an addition to present plant at Second and Monroe Sts.; plans call for erection of plant in units so that the capacity can be increased as desired; boilers will be equipped with automatic fire and coal handling devices; C. H. Kelsey, Supt. of Construction for Stone & Webster, Inc., will be in charge of construction. (Late-ly noted.)

Maryland—Eastern Power Co., Lancaster, Pa. organized to provide electric light and power to Elkton, Havre de Grace, Perryville, Aberdeen, North East, Rising Sun and Port Deposit.

Md., Hagerstown—City will apply to Public Service Comsn. for permission to erect electric light plant; Charles E. Bowman, Mayor.

Mo., Kansas City—Details under Land Developments.

Mo., Mexico—Missouri Utilities Co. contemplate extension to transmission line; will probably install 2000 h.p. steam-turbine generator and auxiliaries including condenser and spray pond, cost about \$100,000; company has 30-day option on purchase of power plant at Warrenton and if plant is acquired will construct 30 mi. line from Montgomery City to Warrenton, including connections with New Florence, High Hill, Jonesburg, Pendleton, etc.

Mo., Republic—Town will vote on granting light and power franchise to Jared R. Woodfill, Jr. of Aurora.

Okla., Mangum—City will probably vote on \$8000 bonds for extending and equipping electric light system lately purchased from John Keys Power Co.

Okla., Minco—City voted to sell to Chickasha Gas & Electric Co., Chickasha, Okla., F. D. Shaffer Mgr. the municipal power plant and to grant franchise for construction of power transmission line to Chickasha.

Okla., Okemah—Okemah Gas & Electric Co., organized by S. T. Palmer, T. E. Stanley, Merle F. Henry, to take over and operate municipal light and power plant.

S. C., Charleston—Chamber of Commerce, L. D. Rubin, Chrm. interested in installing ornamental system of lighting on King, Meeting, Cannon, Columbus, parts of Broad and Calhoun Sts.

Tenn., Bristol—Details under Water Works.

Tex., Beaumont—Eastern Texas Electric Co. let contract to Stone & Webster Co., Inc., 147 Milk St. Boston, Mass. to construct a 22-mi. 7500 k.w., 33,000 volt, 3 phase, single circuit transmission line from Beaumont to Port Arthur; estimated cost \$269,000.

Tex., Port Arthur—Eastern Texas Electric Co. let contract to Stone & Webster, Inc., 147 Milk St., Boston, Mass. to construct 3 story switchboard bay and install new switchboard at Houston Ave. and Riverside Drive power station; cost \$135,000.

Virginia—Virginia Western Power Co., offices at Clifton Forge, Va., A. C. Ford, Pres., has absorbed the Staunton Lighting Co., of Staunton, Va., and other electric properties in Virginia and West Virginia; will construct high tension transmission line between Staunton and Charleston and possibly to Ronceverte, W. Va.

Va., Roanoke—Roanoke Traction & Light Co., increased capital from \$2,000,000 to \$5,000,000.

W. Va., Fairmont—Monongahela West Penn Public Service Co. votes July 31 on increasing capital from \$20,000,000 to \$30,000,000.

Fertilizer Plants.

Fla., Homestead—Florida East Coast Fertilizer Co. Commercial Bank Building, Miami, Fla. have building and will install fertilizer mixing plant.

Tex., Gulf—Texas Gulf Sulphur Co. Bay City, Tex., reported to erect fertilizer plant.

Flour, Feed and Meal Mills.

Ala., Attalla—Attalla Milling Co., incorporated by L. J. Morris, A. Brown and others.

Ark., Siloam Springs—A. B. Current will rebuild mills, burned at loss of \$50,000.

Md., Woodbine—C. A. Gambrill Mfg. Co., Ellicott City, Md. has acquired wheat elevator formerly operated by Corbin and Gosnell.

Tenn., Lenoir City—Town Creek Milling Co. and Muddy Creek Milling Co. consolidated will operate building on East Broadway, constructing additional wing.

Tex., Fort Worth—Smith Bros. Grain Co. let contract for erection of 8 large oval tanks and ten interstices built of reinforced concrete and equipped with modern machinery, about 125,000 bu. capacity.

Foundry and Machine Plants.

Md., Baltimore—Flynn & Emrich, 305 N. Holiday St. have acquired 2½ acre site on Taylor Ave., will erect plant including foundry and machine shop, casting storage building, boiler house, etc.

N. C., Asheville—Asheville Supply & Foundry Co. will expend \$15,000 on repairs to plant.

N. C., Shelby—Shelby Foundry, Thos. J. Babington, Propr., let contract to O. C. Connor, of Shelby to erect 40x100-ft. building, ordinary wood construction; specialize in gear blanks for cotton mills and other castings; moving plant from N. LaFayette St.

Va., Richmond—Tractor and Machinery Sales Co., capital \$100,000, incorporated with J. R. Tucker, Pres.; Frank G. Louthan, Sec.; will manufacture farm machinery and highway building supplies.

Gas and Oil Enterprises.

Fla., DeLand—City granted franchise to DeLand Gas Co., company plans to expend \$150,000 for plant and mains.

Fla., Tampa—Tampa Gas Co. let contract at \$200,000 to W. F. Fennell, of Savannah, Ga., to construct steel gas tank.

Ky., Ashland—Warfield Natural Gas Co., Inc., has acquired plants formerly operated by United Fuel Gas Co. in the following cities: Ashland, Catterletsburg, Louisa, Russell, Inez, Buchanan, Burnaugh, Warfield, Wolf Creek, Himelville, Greenup, Chinnville and other rural districts.

La., Monroe—Dixie Carbon Co., capital \$40,000, incorporated with John P. Allen, Prest., Sullivan, Ind.; Henry Bernstein, Sec., Monroe; will manufacture carbon black, drill for oil and gas, etc.

La., Monroe—Arab Gasoline Corporation, Horace Butler, V. P., let contract to Frank Dalton for railroad siding and to A. F. Mueller for excavation and foundation for casinghead gasoline plant; approximately \$900,000 will be expended for gasoline plant and carbon black plant in connection with casinghead gasoline plant, cost of each plant \$450,000; gasoline plant will have capacity of approximately 15,000 gals. daily and about 11,000,000 cu. ft. of gas; machinery purchased. (Late-ly noted.)

Mo., Columbia—Missouri Utilities Co. of Mexico, Mo. has acquired Columbia Gas Works; will organize company to operate; will expend about \$25,000 in improvements.

Mo., Holden—Mound Valley Oil & Gas Co.,

capital \$100,000, incorporated by Arthur Hesse, W. Marseilles, A. A. Neimeyer.

Mo., Kansas City—Details under Land Developments.

Okla., Tonkawa—Tonkawa Gas Co., capital \$50,000, incorporated by G. S. Mayfield, Tonkawa; S. M. Arthur, Cushing, Okla.

Tex., Brownwood—Blue Ribbon Refinery, capital \$250,000, incorporated by J. A. Goodman, Memphis, Tenn.; will acquire and operate Brownwood refinery.

Tex., Burkburnett—Atlantic Oil Producing Co., Sayre, Okla., will construct 90-mi. pipe line from Sayre oil field to Burkburnett.

Tex., Corsicana—Sinclair Pipe Line Co. have acquired 30 acres of land and will erect pump station, two 55,000 bbl. storage tanks and construct 8-in. pipe line.

Tex., Dallas—Lone Star Gas Co. let contract to Industrial Construction Co., Tulsa, Okla., for erection of 10,000 gal. gasoline absorption plant; six 10x30 ft. tanks, 17,000 gals. each; J. C. Brokaw, Ch. Engr., Dallas; contract for machinery let.

Tex., Dodge—Transcontinental Oil Co. is constructing addition and improvements to refinery at cost of about \$1,000,000; will install 9 pressure stills for manufacture of gasoline from by-products, construct additions to wax plant, filtering plant, sweating plant and 20 tanks, install new lubricating oil agitators and increase tankage capacity 40,000 bbls.

Tex., Eastland—Mogul Oil Corp., capital \$250,000, chartered by C. E. and J. A. Whittenberg and others.

Tex., Gonzales—East and West Oil Co., capital \$50,000, incorporated by J. C. D. Whiting; G. D. Overton, M. L. Barrow.

Tex., Luling—Hain-Towns Drilling Co., capital \$15,000, incorporated by J. S. Hain, N. K. Towns, J. G. Towns, Sr.

Tex., Port Arthur—Eastern Texas Electric Co. let contract to Stone & Webster, Co. Inc., 147 Milk St., Boston, Mass. to erect 55,000 bbl. fuel oil tank and dockage facilities at Houston Ave. and Riverside Drive.

Tex., Houston—Houston Powell Oil Co., capital \$60,000, incorporated by E. D. Staggs, Claude Kavanaugh, C. F. Learned.

Tex., Ranger—Gagman Refining Corp., increased capital from \$150,000 to \$350,000; establishing branches in Graham, Breckenridge, Strawn and Cisco.

Tex., San Antonio—Harkey Oil Corp., capital \$10,000, incorporated by Claud McCauley, S. E. Gantt, W. S. Peyton.

Tex., Texas City—Knox Process Corp. will construct cracking plant of 1000 bbl. capacity; has site of 150 acres, 50 acres of which will be used for factory, remainder for tank farm; company has taken over property of United States Gasoline Corp.

Tex., Wichita Falls—Texas Plains Oil Co., capital \$25,000, incorporated by E. H. Besse, W. H. Sanford, J. M. Bonner.

Ice and Cold-Storage Plants.

Ala., Russellville—Hester & Sons, Proprs., Old Hickory Live Stock Farm, interested in establishing ice and cold storage plant.

Ark., Dequeen—Dallas Ice Co., C. L. Hopkins, Mgr., of Texarkana; has acquired established plant; will remodel; daily output 80 tons.

Ky., Drakesboro—Details under Water Works.

N. C., Burlington—Burlington Fuel & Ice Co., capital \$10,000, incorporated by W. M. Crabtree, W. H. McClare, P. P. Kimmins.

S. C., Charleston—Thomas W. Carroll and others interested in establishing cold storage plant for fruits and vegetables.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

S. C., Spartanburg—Pearce-Young-Angel Co., Spring and Wofford Sts. will install cold storage plant, capacity approximately 10 cars.

Tex., Sweetwater—Southwestern Farm Bureau Assn. contemplates construction of cold storage plant; estimated cost \$10,000.

Iron and Steel Plants.

Ala., Birmingham—Connors Steel Co., Inc., George W. Connors, Pres., South 2nd. Ave., will rebuild burned portion of plant. (Late-ly noted, loss \$200,000.)

Land Developments.

Ala., Gadsden—Etowah Realty and Investment Co., incorporated by A. M. Rattray, Willie S. Rattray and others.

Fla., Belle Glade—C. E. Reidel will develop 21 acres for townsite, will erect store, filling station, etc.

Fla., Jacksonville—Olympia Land Improvement Corp., capital \$1,500,000, chartered with David D. Vincent, Pres.; James W. Mack, Sec.

Fla., Jacksonville—Five Acre Co., capital \$10,000, incorporated with C. A. DuPont, Pres.; Pearl Silva, Sec.-Treas.

Fla., Lakeland—C. I. and H. C. Diggins have acquired Charlesgrove, a tract of 257 acres, fifteen acres of which are already planted in citrus fruits, the remainder to be developed.

Fla., Leesburg—Harry L. Kerl will develop home addition, construct streets, etc.

Fla., Leesburg—T. W. Green will develop home addition.

Fla., Leesburg—R. A. DeWitt of Cleveland, Ohio, has acquired about 10,000 acres of land one half of the tract submerged and other half in pine highland; will fill in tract where necessary, cut canals through from Lake Eustis to Long Lake and otherwise develop for subdivision.

Fla., Miami—Whitten Properties, Inc., capital 125,000, incorporated with Francis S. Whitten, Pres.; Leta McGregor, Sec.-Treas.

Fla., Miami—Hillsborough Beach Development Co., capital \$100,000, incorporated with Franklin M. Thompson, Pres.; Chas. S. Emmerson, Sec.

Fla., Orlando—Florida Made To Order Farms Corp., capital \$1,000,000, chartered with S. A. Hutchins, Pres.; Alex. Brown, Sec.-Treas.

Fla., Orlando—Orlando Golfers Assn., capital \$150,000, incorporated with W. D. Rogers, Pres.; J. V. Asher, Sec.

Fla., St. Petersburg—Realty Holding Co., capital \$50,000, incorporated with A. R. Welsh, Pres.; K. B. O'Quinn.

Fla., Tampa—Details under Road and Street Construction.

Fla., Tampa—Associated Enterprises, capital \$100,000, incorporated with Jerome A. Waterman, Pres.; G. E. Madry, Sec.

Fla., Tampa—Myers & Etter Co., capital \$50,000, incorporated with W. E. Myers, Pres.; Maud Myers, Sec.

Fla., Titusville—New Melbourne Beach Corp., capital \$25,000, chartered with C. H. Nelson, Pres.; J. W. Bullock, Sec.-Treas.

Fla., West Palm Beach—Lafayette Cook of Odenville, Ala., acquired 500 acres at Boca Ratone and will develop for subdivision; will install roads and streets, and other improvements; expend \$25,000.

Fla., West Palm Beach—City Builders Realty Co. has acquired two tracts of land in Palm Beach County and will subdivide.

Ga., Atlanta—City votes Sept. 5 on \$2,000,000 park bonds. Address The Mayor.

Ky., Ashland—Friel, Calvin & Field, Scott

Bldg., organized by G. F. Friel, Gro. W. Calvin and Robert A. Field.

La., Lafayette—Lafayette Land Co. acquired 1900 acres in Acadia and St. Landry Parish and will develop.

La., Shreveport—Park Comn. recommended to City Council purchase of 603 acres of land for redevelopment of park.

Md., Baltimore—Long Crandon Investment Co., Calvert Bldg., capital \$25,000, incorporated by Frank Gosnell, Jesse Slingluff, Fendall Marbury.

Miss., Laurel—Magnolia Holding & Development Co., capital \$25,000, incorporated by T. W. Yates, D. B. Fox and others.

Miss., Vicksburg—Mint Springs Park Co., capital \$15,000, incorporated by Lindsey McGee, John A. Hennessey and others.

Mo., Kansas City—Marlborough Orchard Co., E. L. Winn, Mgr., will develop 23 acres north of city limits for subdivision; grade streets; macadam roads; water works; erect number of dwellings, etc. (Late-ly noted.)

Mo., Kansas City—Acoma Realty Co., capital \$10,000, incorporated by T. Robert, J. J. Konter, F. H. Blum.

Mo., Kansas City—Kansas City Industrial Land Co. (Subsidiary of Union Pacific Railroad Co.) Carl R. Gray, Pres.; C. B. Matthal, Sec.; will expend approximately \$3,000,000 in developments in Fairfax Drainage Dist.; major development consists of approximately 16 miles of streets, 66 ft. wide; 5 mi. of main artery streets 80 ft. wide; 32 miles of switch tracks; electric lights to connect with Kansas City, Kansas, municipal plant; sewers; gas mains; drainage ditches; 5 miles of dikes around the river front; electric lights, etc.; will erect freight depot; have tentative plans for whole project; Wood Bros. Construction Co. of Omaha, Neb., will have charge of building dikes, also 180,000 cu. yds. of ditch work inside the dikes; survey for roads, streets and alleys will be under supervision of C. C. Post, Asst. Ch. Engr. of company.

Mo., St. Louis—Albert Co., incorporated by A. Steinbaum, M. Steinbaum, and others.

Mo., St. Louis—Saint Charles Development Co., capital \$10,000, incorporated by J. J. Farrell, J. A. Noonan, E. L. Black.

Mo., St. Louis—Elias Haas Realty Co., capital \$600,000, incorporated by Samuel Haas, Thersia H. Epstein and others.

N. C., Asheville—Brown Development Co., capital \$100,000, incorporated by Edwin L. Robert S. and Hugh C. Brown.

N. C., Davidson—Davidson College has retained E. S. Draper, Landscape Archt. and City Planner, 11 E. 5th St., Charlotte, N. C., to make survey, plans and supervise construction of new Richardson Athletic Field; will soon let contracts for grading, under drainage and surfacing.

N. C., Greensboro—Matheson—Wills Real Estate Co. acquired 116 acres of land and will develop for subdivision.

N. C., Lexington—Lexington Country Club. George W. Mountcastle, Pres., will construct country club and nine hole golf course.

N. C., Winston-Salem—D. D. Smith and associates have acquired 1765 acres of timber land, will clear timber and develop for resort.

Tex., Beaumont—Tyrell-Combest Realty Co., W. C. Tyrell, Pres., Ross Combest, Mgr., will develop Hillcrest; construct about 20 mi. electric light system, 50 miles of roads and streets; 20 miles of sewer system, water work system, etc.; will expend about \$500,000 in improvements. (Late-ly noted.)

Tex., Dallas—Theo. Marcus Realty Co., capital \$50,000, incorporated by Theo. and Herbert Marcus and others.

Tex., Houston—Park Terrace Co., capital \$7500, incorporated by C. Smith, O. O. Ballard, Fred Schwend.

Va., Bristol—Lee Long will develop Lee Heights consisting of 50 acres for residential site; will grade and pave streets with asphalt; install sewer, water, park, etc.; E. S. Draper, Landscape Archt. and City Planner, 11 E. 5th St., Charlotte, N. C.; Chas. B. Davis, Engr., Bristol.

Va., Norfolk—Oceana Realty Corp., capital \$25,000, chartered with Abbott Morris, Pres.; Gus Webb, Sec.

Va., Norfolk—Butte Street Investment Co., capital \$25,000, incorporated with James Hume, Pres.

W. Va., Warwood—Sun Realty & Builders, Inc., Wheeling, W. Va., acquired 32 acres and will develop for residential site; will construct roads and streets, install drainage system, etc.

Lumber Enterprises

Ala., Tuscaloosa—M. C. Rumley Lumber Co., Inc., M. C. Rumley, Pres. has purchased interests and changed name from Rumley-Allison Lumber Co.; will continue existing business.

Ark., Clarksville—B. F. Redus of Harrison, Ark., has acquired plant of the Ladd & Strong Lumber Co., including complete saw and planing mill equipment and timber holdings; will continue existing business.

Fla., Washington County—Henderson-Waites Lumber Co. of Caryville, Fla., has acquired about 40,000 acres timber holdings from the Foshee Brothers; will develop.

Ga., Savannah—Ogeechee River Lumber Co., capital \$25,000, incorporated by Carey Parker, E. A. Edwards, V. F. Stump.

Miss., Longview—Longview Southern Lumber Co., capital \$10,000, incorporated by R. H. Anderson, Longview; G. W. Zeigler and R. H. Downey, both South Bend, Ind.

Miss., Ona—Ona Lumber Co., incorporated by W. G. McNair, T. L. Carraway and others.

N. C., Asheville—Asheville Manufacturing Co., capital \$100,000, incorporated by A. W. Hyatt, J. W. Rutherford, J. E. Fulghan.

N. C., Sylva—Sylva Coal & Lumber Co., capital \$25,000, incorporated by I. H. Powell, Sylva; D. G. Bryson and V. V. Hooper, both Beta, N. C.

N. C., Waynesville—Southland Hardwood Lumber Co., capital \$50,000, incorporated by A. H. Creelman, Sylla Davis and others.

Mining.

N. C., Raleigh—Lawrence Stone & Gravel Co., capital \$1,000,000, incorporated by Samuel Lawrence, Thomas B. Cowper, both Raleigh; W. R. Bonsal, Charleston, S. C.

Okla., Bartlesville—Bartlesville Zinc Co., will erect modern concentration unit as addition to present plant; estimated cost \$25,000.

Tex., Amarillo—New Jersey Zinc Co., general office 810 Broad St., Newark, N. J., reported to erect zinc smelter, installation pending the purchase of natural gas supply for fuel.

Tex., Austin—Phosphate—Eldor Nance, of Dallas, Tex., has leased 104 acres of phosphate land, will develop.

Miscellaneous Construction.

Ala., Marion—Swimming Pool—Col. W. L. Murfee, Pres. of Marion Institute and others interested in building 120x36 ft. concrete swimming pool on grounds of the Institute.

Fla., Fort Pierce—Ship Channel and Turning Basin—Details under Bridges, Culverts, Viaducts.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Fla., Leesburg—Canal—Details under Land Development.

Fla., Palm Beach—Incinerator—City contemplates \$20,000 bond issue for the erection of 20 ton incinerator plant. Address City Manager Wright.

Fla., Tampa—Seawall, etc.—Hillsborough County Comms. are receiving final engineering plans for construction of seawall and boulevard on the bay shore extending from city limits to Ballast Point.

Fla., Tampa—Seawall—Details under Road and Street Construction.

Fla., Tampa—Dam—W. R. Fuller of Tampa, received contract from the Haraway Construction Co., of Columbus, Ga. to furnish 6000 yds. of flint rock for the construction of federal government dam in the Ocklasaha river.

Fla., Tampa—Terminals—Mallory Steamship Line, H. H. Raymond, Pres., Pier 36, North River, reported to have acquired waterfront property known as Hendry & Knight Terminals; will make improvements; Tilt-Hargen Co., Engrs., 90 West Broadway, N. Y.

Ga., Dublin—Jetties—Government will construct jetties in the Oconee River channel known as Fishtrap cut; J. S. Caruthers, government Engr.

La., Opelousas—City contemplates enlarging west end swimming pool. Address The Mayor.

Md., Elkton—Race Track—Omar Crothers, Pres. and Sec. of a \$55,000 company to develop race track at Rudolph, ½ mi. in length; purchased track site and construction begun.

Mo., Kansas City—Details under Land Developments.

Tex., Dallas—Swimming Pool—Park Board contemplate constructing 70x400-ft. concrete swimming pool in the Fair Grounds; approximate cost \$100,000.

Tex., Houston—Dredging—U. S. War Dept., U. S. Engineer Office, Galveston, Tex. will receive bids until July 20 for dredging Houston ship channel 30 ft. deep, 150 ft. wide from about mouth of Veneces Bayou to about lower end of Harrisburg cut-off and widening by dredging the turning basin on the east side; approximate cost \$800,000.

Tex., Waxahachie—Ellis County Levee Improvement Dist. No. 11 plans levee improvements; contemplates voting \$52,000 bond issue. Address Supervisors.

Va., Danville—Swimming Pool—John T. Watson, Member of Executive Comm., Danville Military Institute, will build swimming pool, convert old mess hall into gymnasium, equip with showers, etc.

Va., Lynchburg—Swimming Pool—City will construct swimming pool in Riverside Park. Address The Mayor.

Va., Richmond—Swimming Pools—City contemplates constructing four public swimming pools; estimated cost \$100,000; pools located in Chimborazo, South Richmond, Fulton and Northside. Address Mayor Ainslie

Miscellaneous Enterprises.

Ala., Bessemer—Bessemer Laundry Co., J. E. Tomlinson, Mgr., has leased building at First Ave. and 21st. St.; will not erect plant addition as lately noted.)

Ala., Birmingham—Clean-AH Compound and Manufacturing Co., incorporated by W. B. Driver, C. A. Tuggle, and others.

Ala., Birmingham—Alabama Industrial Co., Inc., capital \$50,000, incorporated with J. D. Munson, Pres., Cincinnati, Ohio; Guy Mauldon, Sec., Washington, D. C.

Ala., Birmingham—Johanknecht Beverage Co., capital \$35,000, incorporated with Her-

bert Johanknecht, Pres.; L. T. Johanknecht, Sec.

Ala., Birmingham—Auto Calliope Advertising Co., incorporated by Hugh W. Hill, John C. Graham and others.

Ala., Mobile—Mobile Builders Supply Co., increased capital from \$75,000 to \$100,000.

Ark., Conway—Faulkner County Co-operative Creamery Assn., incorporated with Charles Lienhardt, Pres.; Henry Erbach, Sec.

Ark., Fort Smith—Fort Smith Cereal Co., capital \$100,000, incorporated with J. R. Miller, Pres.; will manufacture pancake meal addition as lately noted.

Ark., Little Rock—Mattresses, etc.—Burton-Dixie Corp., main office Chicago, Ill., C. P. Reid, V. P., and local Mgr., will enlarge and double capacity of plant; making the Little Rock plant the chief purchasing center for its several factories.

Fla., Daytona—Daytona Beach Corp., capital \$100,000, chartered with R. L. Selden, Pres.-Sec., Jacob Szold, Treas.

Fla., Jacksonville—Arnold Hotel Co., capital \$20,000, incorporated with A. V. Arnold, Pres.; H. H. Elarbee, Secy.-Treas.

Fla., Jacksonville—Florida Steel & Wire Co., incorporated with W. A. Evans, Pres., Dr. E. I. Carefoot, Sec.-Treas.; will manufacture wire, nails and other steel products.

Fla., Tampa—Pringle-Gay Naval Stores Co., capital \$100,000, incorporated with L. V. Pringle, Pres.; G. C. Pringle, Sec.-Treas.

Ga., Atlanta—White Provision Co., W. H. White, Jr., Pres., will soon begin construction of third unit of packing plant to contain freezer, hog chilling room, dry salt room and sweet pickle curing room; work under supervision of R. J. McLaren of Henschelm & McLaren, packing house architects and engineers of Chicago, Ill. (Previously noted.)

Ga., Atlanta—Blosser-Williams Co., re-organized with R. Lee Webb, Pres.; C. H. Higgins, Sec.-Treas.; continue existing printing business.

Ga., Macon—Central Bedding Co., capital \$15,000, incorporated by A. I. Blum, Morris Michael and others.

Ga., Rome—News-Tribune formed by the consolidation of the Rome News and the Rome Tribune-Herald; will continue existing business.

Ky., Ashland—Bingham Floral Co., capital \$20,000, incorporated by Wm. H. Carp, Robert Bingham, and others.

Ky., Ashland—Ashland Wholesale Drug Co., capital \$250,000, incorporated with J. B. Leech, Pres., W. H. Mahood, Sec., both Cattlesburg.

Ky., Louisville—Louisville Kiln Drying Co., capital \$20,000, incorporated by A. E. Norman, Jr., R. A. Rood, L. L. Wehner.

La., Monroe—Soard & Martin have leased building at 524 deSiard St., will remodel for undertaking establishment.

Md., Baltimore—Greenwald Packing Co., Morton Fox, Pres., Union Stock Yards, will remodel plant, cost about \$45,000.

Md., Baltimore—Label Manufacturers Engraving Co., 815 Gaither Bldg., capital \$50,000, incorporated by Geo. K. Horn, John C. Doeller, Richard Dorsey.

Md., Baltimore—Maryland News Co., 103 E. Pleasant St., capital \$15,000, incorporated by Joseph Ottenstein, Arnold W. Kruse, Aaron Trosch.

Md., Baltimore—E. & H. Bottling Co., 112 Winter St., capital \$100,000, incorporated by Charles H. Heintzeman, Jr., Louis A. Ennis and others.

Md., Baltimore—Cinder Block Corp., 1102

Lexington Bldg., capital \$100,000, incorporated by Willoughby M. McCormick, Charles P. Minning, Ralph J. Taylor.

Md., Baltimore—Maryland Ice Cream Co., 17 E. Pratt St., increased capital by \$350,000.

Md., Baltimore—E. Eyring & Sons Co., 3501 Falt Ave., capital \$100,000, incorporated by Erhard, Edward and Joseph Eyring.

Md., Baltimore—Publishing—William Randolph Hearst, acquired site corner Pratt and Commerce St. will erect \$300,000 building.

Md., Baltimore—American Products Corp., 628 Dolphin St., increased capital by \$250,000.

Md., Baltimore—Satin Candy Co., Inc., 424 E. Saratoga St., increased capital by \$10,000.

Md., Baltimore—Fink, Roemer & Harecum, Inc., 107 W. Fayette St., increased capital by \$55,000.

Md., Baltimore—Everlastone Products Co., Albert I. Rankin, Pres., 119 N. Collington Ave. has plans for the enlargement of plant; will manufacture magnesite stucco and composition flooring.

Md., Baltimore—Baltic Gasoline Co., 1063 Calvert Bldg., capital \$211,000, incorporated by Sophie C. Schey, Wm. L. Henderson and others.

Md., Galena—Samuel G. Caldwell & Co., capital \$25,000, incorporated by Samuel G. Caldwell, Percy V. Hendrickson, and others.

Md., Salisbury—Peninsular Park Assn., Inc., capital \$20,000, chartered by Samuel R. Douglass, Herbert C. Derby, Oscar E. Davis.

Miss., Moss Point—Charles H. Foster, of Biloxi, Miss., elected Pres. of newly organized company, to establish shrimp canning factory, machinery for plant ordered, site not selected.

Miss., Vicksburg—Electrolock Manufacturing Co., Inc., W. Hemingway, Jr., corner Grove and Washington Sts., has machinery for use in assembling and plans for manufacture at later date; let contract to Gustave Lidseen, Chicago, Ill for the manufacture of dies and all steel parts and to Cutler-Hammer Manufacturing Co., Milwaukee, Wis. for electrical parts. (Lately noted.)

Miss., West—West Creamery Co., incorporated by Morris Lewis, C. B. Alexander, A. J. Stevens; let contract to erect creamery.

Mo., Kansas City—Compton Securities Co., capital \$100,000, incorporated by M. A. Compton, Mary M. Weber and others.

Mo., St. Louis—National Sporting Goods Mfg. Co., capital \$30,000, incorporated by W. H. Stumpe, Conrad Ochs and Others.

Mo., St. Louis—Missouri Vending Machine Co., capital \$25,000, incorporated by F. A. Newton, E. W. Snider and others.

Mo., St. Louis—St. Louis Nokol Co., capital \$25,000, incorporated by A. J. Becker, E. E. Schultz and others; will manufacture heating and refrigerating devices.

Mo., St. Louis—Central Paving & Construction Co., capital \$50,000, incorporated by E. R. Gibson, A. Kehde, J. L. London.

Mo., St. Louis—Caveat Publishing Co., capital \$50,000, incorporated by G. E. Merrick, B. C. Stahlsmith, A. J. Troop.

Mo., St. Louis—Coronado Hotel Co., capital \$300,000, incorporated by P. J. Bradshaw, H. C. Smith, R. M. Price.

Mo., St. Louis—Springs Water & Development Co., capital \$150,000, incorporated by A. D. Krueger, E. E. Mehnert, W. F. Schelp.

N. C., Charlotte—Brake and Battery Specialty Co., 219 W. 4th St., established by J. W. Foy and K. W. Partin.

N. C., Charlotte—W. L. Hand Medicine Co., 207 E. Trade St. will erect factory.

N. C., Davidson—Delburg Linden Co., increased capital by \$120,000.

N. C., Wilmington—R. C. Horne, Jr., acquired the Cape Fear Packing Co.'s plant; continue existing business.

N. C., Winston-Salem—Wall-Clark Drug Co., capital \$150,000, incorporated by W. C. Perry, N. E. Perry, Sr., and others.

Okla., Cushing—Cushing Broom Works, incorporated by James M. Dale, H. W. Stone and others.

Okla., McAlester—E-Z Dim Co., incorporated by F. C. Oller, J. W. Hardin, W. C. Masterson.

Okla., Manitou—Manitou Elevator Co., incorporated by D. B. Welborn, A. J. Lindsay, of Frederick, Okla., W. L. Taylor, Manitou.

Okla., Oklahoma City—Brooks & Co., capital \$50,000, incorporated by F. W. Brooks, M. Sutley, William Schreckler.

Okla., Tulsa—Linde-Air Products Co., 30 E. 42nd St., New York, let contract at \$230,000 to A. F. Wasielewski Co. to construct plant; brick, steel and concrete construction. (Previously noted.)

Okla., Tulsa—No-Oyle Bearing Co., capital \$25,000, incorporated by R. B. Lang, Geo. S. Emery and R. G. Gupta.

S. C., Aiken—Aiken Coca Cola Bottling Co., capital \$50,000, incorporated with W. G. Jackson, Pres.-Treas.; H. G. Anderson, Sec.

S. C., Greenville—Palmetto Loom-Harness & Reed Works, has site 100x300 ft. and will erect plant.

S. C., Hartsville—Farmers Storage Co., capital \$100,000, incorporated with W. H. Sory, Pres.; A. L. Wiggins, Sec.

S. C., Hickory Grove—Wilkerson Supply Co., capital \$15,000, incorporated with John S. Wilkerson, Pres.; J. M. Wilkerson, Sec.-Treas.

Tenn., Chattanooga—Times Publishing Co. will expend \$10,000 for remodeling plant.

Tenn., Columbia—W. M. Dean Marble Co. will erect building on S. Garden St. for office, showroom and shop.

Tenn., Knoxville—Gas Supply Co., capital \$50,000, incorporated by J. D. Edmondson, J. E. Russell, W. A. Eckle.

Tenn., Knoxville—Deaver-Nelson Co., capital \$50,000, incorporated by J. G. Wayland, W. G. Deaver, J. N. Nelson.

Tenn., Memphis—Universal Pipe Machine Co., capital \$50,000, incorporated by James A. and Nannie Reese, Joe Tanner; manufacture patented power pipe treading machine.

Tex., Breckenridge—Benton Jewelry Co., capital \$15,000, incorporated by E. J. Benton, Louis D. Daiches, and others.

Tex., Bryan—Parker-Austin Hardware Co. increased capital from \$60,000 to \$100,000.

Tex., Dallas—Universal Printing Co., capital \$20,000, incorporated by C. F. O'Neal, R. G. Buford, J. M. Irwin.

Tex., Dallas—Willis Construction Co., capital \$20,000, incorporated by E. Willis, P. W. Gifford, J. R. Hill.

Tex., Eastland—Benwick Gasoline Co., capital \$60,000, incorporated by L. R. Pearson, I. N. Berry and others.

Tex., Eastland—Turner & Clayton, Inc., capital \$100,000, incorporated by J. W. Turner, E. A. Clayton, Jr., and others.

Tex., Fort Worth—W. C. Moor Co., incorporated by W. C. Moor, G. F. Roselle, J. W. Winter.

Tex., Fort Worth—Panther Grease Co. increased capital from \$15,000 to \$30,000.

Tex., Fort Worth—Dunn-Locke Manufacturing Co., capital \$40,000, incorporated by A. O. Locke, W. S. Stonestreet, S. A. Teas.

Tex., Houston—Texas Bread Co. increased capital from \$100,000 to \$138,000.

Tex., Houston—Standard Belt Mfg. Co. of Los Angeles, Cal., branches at Chicago and New York, reported to establish branch plant at Houston.

Tex., Houston—Texas Orange Crush Bottling Co., capital \$25,000, incorporated by J. M. Mix, H. C. King, Jr., J. T. Coleman.

Tex., Huntsville—Huntsville Stone and Crushing Co., capital \$50,000, incorporated by G. M. Picton, A. N. Peckhan, A. F. Paul.

Tex., Luling—N. K. Towns Production Co., capital \$75,000, incorporated by N. K. Towns, J. S. Hain and others.

Tex., Mercedes—Charles Saladino Co., capital \$15,000, incorporated by C. Saladino, J. E. Haines, F. O. Moffett.

Tex., Orange—The Orange Medicine Co., capital \$20,000, incorporated with E. Ray Thompson, Pres.; Hunter Huddle, Sec.-Treas.; will establish plant in Morgan Bldg. for the manufacture of patent medicine.

Tex., San Antonio—Tips Hardware Co., capital \$250,000, incorporated by E. I. and F. J. Tips and others.

Tex., Waco—Southwestern Bonded Warehouse Co., capital \$10,000, incorporated by J. P. Henderson, F. H. McCurdy, Joe Wood.

Va., Bristol—Crowell-Blevins Co., capital \$20,000, incorporated with G. L. Crowell, Prest., Statesville, N. C.; C. C. Rigsby, Sec., Bristol.

Va., Haymarket—Hickory Grove Cheese Manufacturing Co., capital \$25,000, incorporated with W. P. Wilson, Pres.; W. R. Gesson, Sec.; to manufacture dairy products.

Va., Norfolk—Jones Son & Co., increased capital from \$150,000 to \$300,000.

Va., Norfolk—American Bag Co., Inc., chartered with H. Elsenon, Prest.; L. Elsenon, Sec.

Va., Norfolk—Norfolk Edible Corp., capital \$100,000, chartered with W. N. Gregory, Pres.; R. B. Douglas, Sec.; to manufacture vegetable oils.

Va., Petersburg—Sanitax Chemical Co., incorporated with C. B. Seward, Pres.; C. W. Sutherland, Sec.

Va., Radford—J. P. McConnell, Hal C. Tyler and others interested in organizing company to establish quarry and stone crushing plant.

Va., Richmond—J. G. Kolbe let contract to C. E. Sprinkle, to erect bakery; 30x125x25 ft.; brick; slag roof; steam heat; wood floors; cost \$20,000.

Va., Richmond—Davis Land Co. let contract to Davis Bros. to construct drying and cleaning establishment at 1008 N. Boulevard; 40x90x16 ft.; brick; slag roof; steam heat; wood floors; cost \$11,000.

Va., Richmond—Duplex Envelope Co. will erect envelope manufacturing plant at Laurens and Broad Sts.; 250x100x34 ft.; brick; tile roof; steam heat; wood floors; cost \$160,000; Davis Bros., Contr. 2510 W. Main St., company increased capital from \$250,000 to \$420,000. (Lately noted.)

Va., Richmond—Agar Manufacturing Corp., increased capital from \$200,000 to \$450,000.

W. Va., Charleston—Charleston Co., capital \$100,000, incorporated by Arthur B. Hodges, Duke W. Hill, Harrison B. Smith.

W. Va., Charleston—Glenn-Mulvihill Plastering Co., incorporated by John F. Glenn, C. J. Mulvihill, John S. Horan.

W. Va., Morgantown—Jesse E. Clay purchased plant of Armocord Rubber Co.

W. Va., Ronceverte—W. H. Van Pelt of Harrisonburg, Va. will install electric bakery in building of Frankford Road.

Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Darby Motor Co., capital \$30,000, incorporated by W. R. Holliday, C. L. Darby, J. J. Burks.

Ala., Birmingham—Birmingham Auto Top Co., 1917 Ave. D. will occupy 90 x 100-ft. garage building, semi-fireproof, cost \$32,000; erected by Burger & Phillips; E. R. Maynard, Contr., 2318 Ensley Ave., Ensley, Ala.; M. Louis Kroman, Archt., 921 Woodward Bdg., Birmingham. (Lately noted.)

Ala., Gadsden—Cobb-Buck Motor Co., capital \$25,000, incorporated by W. A. Cobb, B. B. Buck and others.

Fla., Belle Glade—Details under Land Development.

Fla., Brownsville—Barnetta Garage Co., capital \$10,000, incorporated with Lloyd Barnett, Pres.; R. F. Saxon, Sec.-Treas.

Fla., Stuart—Garage—Babcock's Garage, Bert Babcock, Propr. will build additional story to garage, double capacity.

Fla., Tampa—Chalker & Wade, capital \$75,000, incorporated with Selwyn Chalker, Pres.; A. L. Wade, Sec.-Treas.

Ky., Cynthiana—Garage—Clarence LeBus will erect 90x200 ft. brick and steel garage building; approximate cost \$30,000, composition roof, concrete floors; Manley & Young, Archts., Knoxville, Tenn.; construction by owners.

La., New Orleans—Garage—Mrs. H. M. Field let contract to C. F. Owens at \$40,800 to erect 1 story, 85x120 ft. garage building of reinforced concrete construction.

La., Sulphur—Sulphur Motor Co., T. L. Huber, Pres. will erect 80 x 100-ft. fireproof building, fireproof, estimated cost \$12,000; open bids Oct. 1; R. S. McCook, Archt., Sulphur. (Lately noted.)

Md., Baltimore—The Apperson Motor Co. of Maryland, Charles and 20th. St., incorporated by Samuel J. Macey, Wm. Valentine, Roland Jaworski.

Md., Baltimore—Garage—Abraham Bloombaum, 19.9 Clifton Ave. will erect brick garage building, cost \$12,000.

Md., Hagerstown—Hollingsworth & Cline, Real Estate Dealers, have secured control of Moller Motor Co., of Lewiston, Pa., and want desirable location, convenient to railroads, skilled labor, healthy climate.

Mo., Independence—Garage—Harry Butcher will erect brick and concrete garage building on Osage St., cost \$10,000.

Mo., Joplin—Waite Phillips Oil Co. will erect filling station at 5th. and Joplin Sts.

Mo., St. Louis—Speer Automobile Co., capital \$10,000, incorporated by W. S. Speer, G. E. Kaiser and others.

N. C., Hendersonville—Hendersonville Buick Co., capital \$25,000, incorporated by E. G. Stillwell, O. E. Hedge and others.

Okla., Tulsa—Garage—Thomas Hardware Co., will construct public garage at 102 N. Denver St., cost \$25,000.

S. C., Chester—Filling Station—C. C. C. Young will erect filling station, acquired site on Hudson St.

S. C., Lake City—Gaddy Service Station, incorporated with C. F. Gaddy, Pres.; Elizabeth Gaddy, Sec.-Treas.

Tenn., Memphis—Sales Building, etc.—Graham-Merrin Co. will occupy 210x140 ft., 2 story sales and service building on Union Ave., pressed brick walls, stone trimmings, copper cornices, plate glass windows, concrete floor; estimated cost \$80,000; E. L. Har-

rison, Archt. and Engr.; building owned by Julius Goodman and Dr. M. B. Herman.

Va., Alexandria—Alexandria Service Station, capital \$150,000, incorporated with Frederick G. Duvall, Pres.; C. Keith Carlin, Sec.

Va., Norfolk—Elliott Motor Corp., increased capital from \$50,000 to \$100,000; changed name from Johnston Motor Co.

Va., Radford—Tate-Eller Co. have acquired 100x150 ft. site corner of First and Walker Sts. will erect automobile station.

W. Va., Charleston—Garage—James Kay will erect public garage building at 1558 Washington St., estimated cost \$18,500.

W. Va., Kenova—Kenova Auto Sales Co., J. W. Rife, let contract to W. R. Greenslaid, Kenova to erect 50x100-ft. garage and storage and storage building on Poplar St.

W. Va., Piedmont—Pied Automobile Sales Agency, Inc., 47 Third St., capital \$25,000, incorporated by Wm. G. Beier, and John H. Daddysman, both Westernport, Md., Ed. J. Cross, Cumberland, Md.

Railways.

Fla., Fort Myers—Fort Myers Southern Railroad Co., which is controlled by the Atlantic Coast Line, at present contemplates building from Fort Myers to Bonita Springs, about 23 mi. Projected further to Naples and Marco, Fla., total of about 45 mi. J. E. Willoughby, Wilmington, N. C., is Ch. Engr., Atlantic Coast Line.

Tex., Fort Worth—Northern Texas Traction Co. let contract to Stone & Webster Co., Inc., 147 Milk St., Boston, Mass., to construct \$34,000 reinforced concrete paint shop at Pacific Ave. and Pine St.

Railway Shops, Terminals, Round-houses, Etc.

Mo., Kansas City—Details under Land Developments.

Road and Street Construction.

Ala., Birmingham—City plans paving Cotton Ave. from 6th to 14th Sts., estimated cost \$35,000; 23rd St., and Walnut Circle, from 25th St. to 15th Ave., cost \$14,000; 5-in. concrete with 2-in. asphaltic concrete surface; curb and place chert filler on 16th St. from Alabama Ave. to Fulton, and on 17th St. from Lee Ave. to Princeton Alley; will receive bids soon to pave with shell, 4 blocks on Forrest St., 1 block each on Park and Hazel Sts. Address City Comm.

Ala., Clanton—State Highway Dept., Montgomery, Ala., will probably let contract latter part of Aug. to grade, drain, and surface 34 mi. Birmingham-Montgomery Highway through Chilton County, approximate cost \$1,000,000; W. S. Keller, State Highway Engr., Montgomery; J. H. Mayer, Div. Engr., Birmingham. (Lately noted.)

Ala., Gadsden—State Highway Comsn., Montgomery, Ala., opened bids for construction of 2½ mi. road in Etowah County; S. J. Jennings, Gadsden, Ala., lowest bidder at \$62,766.98. (Lately noted.)

Ala., Jasper—State Highway Comsn., Montgomery, Ala., opened bids for construction of 22.8 mi. road in Walker County; Stanley & Singer, Lafayette, Ala., lowest bidder at \$513,982.68. (Lately noted.)

Ala., Marion—State Highway Comsn., Montgomery, Ala., opened bids for construction of 10.6 mi. road in Perry County; Stanley & Singer Construction Co., Lafayette, Ala., lowest bidder at \$157,710.00. (Lately noted.)

Ala., Mobile—Details under Water Works.

Ala., Montgomery—State Highway Comn.,

Montgomery, Ala., will receive bids until July 31 for 11.32 mi. road in Montgomery County, between Dublin and Orion; gravel, one course plain cement or sand-clay surfacing; will also build treated timber or concrete bridges; plans, etc., on file; W. S. Keller, State Highway Engr., Montgomery.

Ala., Oneonta—State Highway Dept., Montgomery, Ala., received low bid from W. C. Hill, Birmingham, at \$127,264.45, for 16.37 mi. chert road, between Village Springs and Oneonta, and from W. T. Weaver, Collinsville, at \$47,432.88, for concrete bridges.

Ala., Russellville—Franklin County Commissioners will construct 12.13 mi. gravel road, Project No. 135, cost \$200,000; A. P. Henderson, Engr. in charge, Decatur, Ala.

Fla., Bunnell—State Road Dept., Tallahassee, Fla., let contract to Barber & Fortin, Gainesville, Fla., at \$186,899.89 to construct 5 mi. concrete road in Flagler County, Project No. 507; H. C. Green, Div. Engr., Fort Pierce, Fla.

Ark., Fort Smith—Sebastian County let contract to Otto V. Martin Co., Fort Smith, at \$200,000 for 32 mi. shale road with concrete culverts and bridges, from Fort Smith to Mansfield through Jenny Lind and Greenwood. Address County Commrs.

Ark., Hot Springs—City contemplates repaving Park Ave., improving Valley St., and paving 2 blocks of Whittington Ave. near Central Ave. intersection. Address The Mayor.

Ark., Newport—Street Improvement Dists. Nos. 7 and 8 let contract to Donathan McClanahan Construction Co., Homer, La., at \$123,000 for paving 26 blocks business and residential streets.

Ark., Pine Bluff—City let contract to C. M. Philpot Construction Co., Pine Bluff, at \$25,000, for paving in Improvement Dist. No. 51, including 16th Ave. from Olive to Main St.; Chestnut, from Harding to 14th; 14th from Chestnut to Pine, and Walnut from 15th to Harding.

Fla., Clearwater—Pinellas County, Pinellas Park Road and Bridge Dist., plans building asphalt surface road from Bandy Bridge to Pinellas Park, then to Sem'nole Bridge, and across to Boca Ceiga Bay; will also build causeway to Long Key, costing \$133,000; contemplates \$251,000 bond issue. Address County Commrs.

Fla., Clearwater—Pinellas County Comrs. receives bids until August 14 to construct with vitrified brick, asphalt block, sheet asphalt certain roads, numbers 1, 2, 3, 4, 5, 6, 7, 8, approximate quantities 250,000 sq. yds. of re-laid vitrified brick surface with bituminous filler and approximately 550,000 sq. yds. of new pavement surface together with all clearing, grubbing, grading, drainage structures, rock base, curb and other items appurtenant to the completed work; C. E. Burleson, County Engr.

Fla., De Land—Volusia County will receive bids until Aug. 6 for 39.5 mi. hard surfaced road, of rock base course with surface treatment, with 13 reinforced concrete culverts, 9 timber trestle bridges, and 21 vitrified pipe culverts, in Turnbull Special Road and Bridge Dist.; plans, etc. from N. A. Hotard, Engr., Lutz Bldg., New Smyrna, Fla.; Ben. D. Thursby, Chmn., Bd. of County Commrs.

Fla., Gainesville—State Road Dept., Tallahassee, Fla., will receive bids until July 17 to grade, construct drainage structures and surface 7.963 mi. road from Payne's Prairie to Marion County line; bituminous macadam on 8-in. rock base, or sheet asphalt with binder course on 8-in. rock base; Alachua County, Proj. No. 37 E.; plans, etc., on file and from Div. Engr., Ocala, Fla.; Wm. F. Cocke, State Highway Engr.

Fla., Leesburg—Details under Land Developments.

Fla., Pensacola—Escambia County will receive bids until July 18 for 3.08 mi. Pensacola-Flomaton road, from South side of Canoe Creek Hill, north to connect with Paving Proj. No. 5; 31,750 sq. yds. reinforced concrete paving, 6950 lin. ft. combination curb and gutter; Proj. No. 7; plans, etc., from Jas. Macgibbon, Clk., Circuit Court; H. E. Gandy, Chmn., Board of County Commissioners.

Fla., Sebring—Highlands County will receive bids until July 16 to grade 16 mi. road from DeSoto City Station to point near Istokpoga Creek, on Bassenger road; plans, etc., from Peacock & Hood Engineering Co., County Engrs., Seabring.

Fla., Tallahassee—City will receive bids until Aug. 2 for 65,000 sq. yds. paving; 12,000 lin. ft. concrete curb and gutter, or 12,000 lin. ft. granite curb; 3000 lin. ft. 12 to 24-in. storm sewers; plans, etc., from W. Austin Smith, City Mgr.; B. H. Bridges, City Auditor Clk.

Fla., Tampa—Details under Miscellaneous Construction.

Fla., Tampa—City plans municipal improvements as follows: Build 2 or more bridges across Hillsborough River; open and widen several streets; complete city sewer wall; improve Little Island; extend sewer system; improve and extend park system; build auditorium and public market; plans voting Sept. 4 on about \$2,000,000 bonds. Address City Comm.

Fla., Titusville—State Road Dept., Tallahassee, Fla., let contract to Barber Fortin Co., Gainesville, Fla., at \$87,929.52 to construct 5 mi. concrete road, Project No. 554 and at \$89,326.12 for constructing 5 mi. concrete road, Project No. 556, in Brevard County; H. C. Green, Div. Engr., Fort Pierce.

Ga., Augusta—City let contract to W. F. Bowe, Jr., Augusta, at \$1.05 sq. yd., to pave Campbell St. between Greene and Telfair Sts.

Ga., Augusta—City let contracts for street paving as follows:

Concrete surface on 5th St. from Broad to Calhoun Sts., to W. F. Bowe, Jr., at Augusta, at \$37,038.50; Warrenite surface on Twiggs from Telfair to 7th, to Ely Construction Co., Augusta, at \$14,944; concrete surface on Milledgeville road, and Twiggs St. from 7th to Turpin, to Claussen-Lawrence Construction Co., at \$115,896; asphaltic concrete surface on concrete foundation on Savannah road from Twiggs to 12th Sts., to Ely Construction Co., at \$12,853; concrete on Broad from Eve to Milledge road, to Claussen-Lawrence Construction Co., at \$54,850; Willite material surfacing on Broad from Milledge road to Lake View Bridge, to W. F. Bowe, Jr., at \$16,240.

Ga., Fitzgerald—State Highway Dept., Atlanta, Ga., approved plans to pave Dixie Highway between Fitzgerald and Wilcox County line, at Bowens Mill.

Ga., Thomasville—City let contract to Adams-Evans Co., Jacksonville, Fla., at about \$100,000, for street and sidewalk paving; vitrified brick, with 4-in. cement concrete base, sand cushions and asphalt filler; H. J. McIntyre, Mayor.

Ga., Tybee—Town let contract to Dixon Contracting Co., at \$103,800, for 4.3 mi. oil asphalt paving, including 3rd, Main, Chatham Ave. and 1st Sts.; E. George Butler, Mayor.

Kentucky—State Highway Comn., Frankfort, Ky., will receive bids until July 25 to improve 28 road projects as follows: State Proj. No. 19-A—Oldham County, 3.390

mi. LaGrange-New Castle road, from La Grange to Henry County line, waterbound macadam, river gravel, or waterbound macadam surface treated; No. 46-A—Henry, Trimble and Carroll Counties, 12.1 mi. New Castle-Carrollton road from Campbellsburg to Carrollton, waterbound macadam, river gravel, or waterbound macadam surface treated; No. 27-A—Clinton County, 4.284 mi. Albany-Monticello road, from Cartwright to Wayne County line, waterbound macadam, bank gravel or waterbound macadam surface treated; will bituminous surface treat following: No. 25, Sec. C—Boyle County, 2 sections; 4.5 mi. Danville-Perryville road, from city limits of Danville 1 mi. west, and from Salt River to Perryville; No. 5, Sec. 1-2 and 1-3—Fayette County, 8.32 mi. Lexington-Richmond road, from 4.78 mi. south of city limits of Lexington to near toll gate at Kentucky River; No. 20, Sec. R—Greenup County, 1.5 mi. Catlettsburg-Greenup road, from city limits of Russell to city limits of Chinnville; No. 21, Sec. E—Harrison County, 9.6 mi. Falmouth-Cynthiana road, from Pendleton County line south; No. 11, Sec. H—Hart County, 6.67 mi. Western Dixie Highway, from Munfordsville to Bonnieville; No. 8, Sec. B—Hardin County, 2.7 mi. Louisville-Paducah road, from Salt River Bridge to Camp Knox reservation; No. 8, Sec. A-1—Jefferson County, 2.1 mi. Louisville-Paducah road, from overhead crossing of I. C. R. R., to Salt River Bridge; No. 3, Sec. F—Larue County, 6.407 mi. Jackson Highway road, from Buffalo to Hart County line; No. 3, Sec. G—Hart County, 1.865 mi. Jackson Highway road, from 2 mi. south of Larue County line to Pike View; No. 50, Sec. C—Madison County, 4.67 mi. Richmond-Winchester road, from Stone's Run to Kentucky River.

No. 5, Sec. K—2 sections; 2 mi. Richmond-Berea road, from south of city limits of Richmond to Fort Estill; 5.5 mi. from Kingston to Berea; No. 61, Sec. A-1—Nicholas County, 4.3 mi. Carlisle-Sharpsburg road, from city limits of Carlisle to Moorefield; No. 49, Sec. C—Owen County, 8 mi. Owenton-Warsaw road, from Owenton to Bromley; No. 19, Sec. D—Owenton-New Castle road, 8 mi. from Owenton to Cratz; No. 17, Sec. F—Scott County, 3.7 mi. Frankfort-Georgetown road, from Georgetown west; No. 5, Sec. F—3.2 mi. Georgetown-Williamstown road, from Georgetown north; No. 58½, Sec. A-1—Scott County, 3.2 mi. Georgetown-Cynthiana road, from Oxford to Harrison County line; No. 1, Sec. J—Todd County, 4.34 mi. Elkton-Hopkinsville road, from Christian County line east; No. 35, Sec. O—Whitley County, 3.69 mi. Williamsburg-Corbin road, from Williamsburg to Wofford; re-surface with waterbound macadam following.

No. 25, Sec. F-1—Garrard County, 6.1 mi. Lancaster-Richmond road, from Sta. 254 plus 00 to Madison County line; No. 25, Sec. A-1—Jessamine County, 5.4 mi. Nicholasville-Lexington road, from Nicholasville to Fayette County line; No. 62-C and No. 21-C—Pendleton County, 7 mi. Falmouth-Covington road, from Junction of Williamstown road north; re-construct No. 17, Sec. C—Shelby County, 6 mi. Louisville-Frankfort road, from Buzzard Roost Bridge; Joe S. Boggs, State Highway Engr.

Kentucky—State Highway Comm., Frankfort, Ky., plans grading and surfacing 3 roads as follows:

Pendleton County, 7 mi. Falmouth-Newport road, State Proj. No. 21; Larue County, 5.405 mi. Hodgenville-Glasgow road, from Hodgenville to Buffalo; gravel, water-

bound macadam, or waterbound macadam surface treated; Federal Aid Proj. No. 107, State Proj. No. 3; Daviess County, 8.56 mi. Owensboro-Hawesville road, from 4 mi. north of Owensboro to near Hancock County line; Federal Aid Proj. No. 105, State Proj. No. 8; Joe S. Boggs, State Highway Engr.

Ky., Hazard—Perry County will let contract soon to grade 5 mi. Lott's Creek section of Kentucky-Virginia Highway. Address County Commrs.

La., Napoleonville—Louisiana Highway Comm., Baton Rouge, La., will receive bids until July 24 for 8½-mi. hard surfaced road, known as Attakapas Canal road, in Road District No. 1, from Bayou Lafourche to within 2 mi. of Lake Verret, Assumption Parish; plans, etc., from J. C. Watles, Civil Engr., Napoleonville; R. L. Baker, Pres. Assumption Parish Police Jury.

La., New Roads—Pointe Coupee Parish, Road Dist. No. 5, receives bids until July 10 to grade, construct drainage structures, etc., on Lower Latanache Model Road; plans, etc., from Alexander B. Cotton, Sec., Supvg. Board, Batchelor, La.

Maryland—State Roads Comm., 601 Garrett Bldg., Baltimore, Md., will receive bids until July 24 for 4 roads as follows:

Anne Arundel County, 2 mi. gravel from end of Cont. AA-15 toward Shadyside, Cont. AA-33; Charles County, 2.2 mi. gravel from Marbury to Rison, Cont. Ch-27; St. Mary's County, 2 mi. gravel from Leonardtown toward Hollywood, Cont. SM-26; Worcester County, 1 mi. concrete, from Berlin to Trappe Mills, Cont. Wo-31; John N. Mackall, Chmn. Roads Comm.

Maryland—State Roads Comm., 601 Garrett Bldg., Baltimore, receives bids until July 11 to macadam resurface 2 sections of roads as follows:

Washington County, 11.6 mi. between Hagerstown and Sharpsburg, Cont. W-27; Baltimore County, 1 mi. through Granite; John N. Mackall, Chmn., Roads Comm.

Md., Baltimore—City will receive bids until July 18 to grade and pave with concrete alleys in Cont. Nos. 105 and 106; plans, etc., from Board of Awards, Mayor Howard W. Jackson, Pres.; Steuart Purcell, Ch. Engr.

Md., Baltimore—State Roads Comm., 601 Garrett Bldg., and Water Dept., plans widening Greenmount Ave.; John N. Mackall, Chmn. Roads Comm.

Md., Frostburg—City will receive bids until July 14, and State Roads Comm., 601 Garrett Bldg., Baltimore, will receive bids until July 17 to grade, pave with concrete, and curb .25 mi. W. Union St. from Percy Cemetery Alley to corporate limits; Cont. A-27; plans, etc., on file; John Stewart, City Clk., Frostburg; John Mackall, Chmn. State Roads Comm., Baltimore.

Md., Rockville—U. S. Dept. of Agriculture, Bureau of Public Roads, Washington, D. C., in cooperation with Montgomery County, Md., will receive bids until July 23 to resurface .702 mi. road at Chevy Chase; approximate cost \$12,500; H. K. Bishop, Ch. Div. of Construction, Washington.

Md., Towson—Baltimore County will receive bids until July 12 to resurface 1 mi. Rolling Road from Johnnycake to Dogwood roads; plans, etc., from Samuel A. Green, Roads Engr.

Miss., Cleveland—Bolivar County, Shelby Separate Road Dist., will receive bids until July 16 for 35 mi. gravel road in Dist.; Geo. B. Shelby, Commr. of Shelby Separate Road Dist., Shelby-Citizens Bank & Trust Co., Shelby, Miss.

Miss., Houston—State Highway Dept., Jackson, Miss., let contract to Tate & Co., Brookville, Miss., at \$60,000 for 8 mi. gravel road in Chickasaw County, between Woodland and Webster County line.

Miss., New Albany—Union County voted \$200,000, bonds; W. H. Speck, Chancery Clk.

Miss., Pascagoula—Jackson County will receive bids July 30 to build section of Old Spanish Trail from Gautier to Ocean Springs; \$387,000 bond issue authorized. Address Board of Supvrs.

Miss., Port Gibson—Calhoun County, Dist. 4, embracing Hermanville, plans improving and building roads; voted \$60,000 bonds. Address County Commrs.

Miss., Senatobia—Town will receive bids until July 16 for 12,000 lin. ft. concrete combined curb and gutter, and 18,000 sq. yds. gravel surfacing, etc.; plans, etc., from Harper Johnson, Clk.; J. H. Dorroh, Engr., University, Miss.

Miss., Tupelo—City plans additional street paving; contemplates voting July 28 on \$150,000 bonds; D. W. Robins, Mayor.

Miss., Vicksburg—Warren County plans building and improving 6 roads as follows: 7.6 mi. 16-ft. gravel, North Scenic Highway to Haynes' Bluff, cost \$170,000; 5.75 mi. 16-ft. gravel, North Scenic Highway, from Haynes' Bluff to Issaquena County line, cost \$116,000; 6.5 mi. 12-ft. gravel, Fisher's Ferry Highway, from Hall's Ferry road to Fisher's Ferry Bridge on Big Black River, \$45,000; repair old Valley road, \$5000; 6 mi. 12-ft. gravel, Oak Ridge Extension, from Oak Ridge to Yazoo County line, \$45,000; 9.35 mi. 14-ft. gravel, North Scenic Highway, north end from Haynes' Bluff to Yazoo County line, \$62,000; also plans following bridges; Yazoo River Bridge at Haynes' Bluff, cost \$250,000; North Scenic, on road from novaculite to Haynes' Bluff, cost \$50,000; North Scenic, on road from Haynes' Bluff to Issaquena line, cost \$50,000; South Scenic, and M. V. R. R. overhead crossing, cost \$100,000; contemplates voting Aug. 7 on \$300,000 bonds to pay one-half cost. Address Board of Supvrs.

Mo., Cape Girardeau—City opens bids July 16 for paving certain alleys and streets, A. P. Behrens, City Clerk.

Mo., Excelsior Springs—City plans paving from Wabash tracks to Old Orchard to connect with county paving; will vote July 17 on \$20,000 bonds. Address The Mayor.

Mo., Joplin—City let contract to V. E. Koch, Joplin, at \$1.83 sq. yd. to pave Joplin St., from 1st to 2nd; and to Henry Kost, at \$1.83 sq. yd. to pave Jackson Ave. from 2nd to 5th Sts.; one course concrete with squeegee asphalt top.

Mo., Kansas City—Details under Land Developments.

Mo., Maryville—City plans paving with vitrified brick, W. 3rd and W. 4th Sts., and Grand Ave. Address The Mayor.

Mo., St. Joseph—City plans repaving 3rd St. from Sylvania to Edmond, and 4th from Sylvania to Sylvania, with present sand stone blocks on concrete and Portland cement foundation; will repave Kansas St. with Portland cement concrete; also plans repaving 11th St. from Mitchell to Seneca, and paving Paris from Chestnut to Huntoon, with Portland cement concrete; repaving Farrar from 13th to 15th and paving Virginia from Lake to King Hill, with asphaltic concrete. Address Board of Public Works.

Mo., St. Joseph—City let contract to Casteel Construction Co., to pave with Portland cement-concrete, Sacramento St. from 20th to 26th, and to Land Construction Co.,

St. Joseph, to grade Miller from Ashland to east city limits; also plans paving with portland cement concrete, 27th from Jule to Union; Colorado from King Hill to Barbarz, and Angelique from Noyes to 29th. Address Board of Public Works.

Mo., St. Joseph—City plans paving several sections of 22nd St. Address The Mayor.

North Carolina—State Highway Comm., Raleigh, N. C., let contract for 19 road projects as follows:

141—Edgecombe County, 18.93 mi. soil road between Whitakers and Halifax, Route No. 40, to J. P. Discus, Robersonville, at \$131,626.50 for roadway, to J. A. Peterson, Montgomery, Ala., at \$64,008.50 for structures; 189-230-293—Wilson and Green Counties, 19.69 mi. hard surfaced road on Routes Nos. 91 and 12, to Smith Bros., Dallas, Tex., at \$680,024.80 for roadway, to Public Service Production Co., Newark, N. J., at \$58,644.40 for structures; 213—Craven County, 10.43 mi. hard surface between Jasper and Fort Barnwell, Route No. 20, to Eagle Engineering Co., Newbern, at \$406,409.31 for roadway and structures; 431—Granville County, 3.83 mi. solid road between Berea and Pearson County line, Route No. 57, to Michaux Contracting Co., Morgantown, at \$38,996.10 for roadway and structures; 438—Harnett County, 3.82 mi. hard surface, between Duke and Dunn, Route No. 60, to J. M. Gregory, Pittsboro, at \$119,576.65, for roadway, to T. J. Newell, Clinton, at \$17,146.60, for structures.

464—Person County, 11.58 mi. soil between Roxboro and Granville County line, Route No. 57, to Michaux Contracting Co., at \$78,426.10, for roadway and structures; 556—Montgomery County, 3.07 mi. penetration, in and near Mt. Gilead, Route No. 51, to J. F. Mulligan Construction Co., North Wilkesboro, at \$71,656; 608—Anson County, 3.83 mi. soil, between Peachland and Polkton, Route No. 20, to B. F. Teeter, Harrisburg, at \$29,941, for roadway, to J. A. Peterson, Wadesboro, at \$14,283.10, for structures; 672—Rowan County, 3.54 mi. hard surface between Cleveland and Iredell County line, Route No. 20, to Stearns Bros., Statesville, at \$122,587.50, for roadway, to Luten Bridge Co., Knoxville, Tenn., at \$29,631.20 for structures; 702B—Allegheny County, 6.49 mi. between Sparta and Ashe County line, Route No. 69, to Turner-Hartsoe Construction Co., Warrensville, at \$146,075; to Luten Bridge Co., at \$28,231.60 for structures.

802—Avery County, 5.68 mi. graded road, between Newland and Elk Park, Route No. 175, to Hughes & Ray, Newland, at \$102,513.80 for roadway and structures; 812—Burke County, 4.89 mi. soil road between Glen Alpine and Bridgewater, Route No. 10, to M. A. Kollock, Morgantown, at \$45,988.50 for roadway; 836—Henderson County, 9.10 mi. between Hendersonville and Buncombe County line, Route No. 26, to J. B. Hawkin, Charlotte, at \$58,496 for grading; 837B—Henderson County, 5.83 mi. asphalt surfacing between Tuxedo and Hendersonville, Route No. 29, to Dixon Construction Co., Savannah, Ga., at \$75,537.40; 851-889—McDowell-Yancey Counties, 18.98 mi. low bidder W. H. Anderson Construction Co., Spruce Pine, at \$386,253.80; 930A—Graham County, 2.92 mi. from Topton to top of mountain, Route No. 108, to C. M. Dicus, Bryson City, at \$11,130; Frank Page, Chmn. of Highway Comm.

N. C., Asheville—Buncombe County let contract to Howerton-Tirsway Co., Asheville, at \$88,000 to lay 2.5 mi. plain cement concrete in Beaverdam Township. (Lately noted.)

N. C., Davidson—Details under Land Developments.

N. C., Greensboro—City plans widening Greene St. to 80 ft. Address The Mayor.

N. C., Henderson—Vance County let contracts to R. G. Lassiter Construction Co., Raleigh, N. C., to hard surface 3 mi. road on Dabney, Oxford and Cooper roads, leading out from Henderson, at cost of \$81,000.

Oklahoma—State Highway Dept., Oklahoma City, Okla., let contracts for 5 road projects as follows:

Washington County, 6 mi. one course plain cement concrete, between Bartlesville and Romona, Federal Proj. No. 15, to Hamilton Construction Co., Bartlesville, at \$199,104.32; Pittsburg County, 3 sections one course plain cement concrete; 7.42 mi. between Savanna and Kiowa, Federal Aid Proj. No. 79; to Gibson & Mitchell, Pauls Valley, at \$230,756.02; 5.66 mi. from McAlester north, Federal Aid Proj. No. 80, to Green-Beekman, Oklahoma City, at \$116,869.58; 3.84 mi. from Hartsborne to Latimer County line, Federal Aid Proj. No. 81, to Smith Bros., Dallas, Tex., at \$170,114.36; Carter County, 2.93 mi. one course plain cement concrete, from Ardmore, east, Federal Aid Proj. No. 89, to Southern Construction Co., Durant, at \$84,090.72.

Okla., Ada—City receives bids until July 10 to pave Francis Ave. from Main to 12th and from Main to 10th; plans, etc., from J. C. Devaer, Clk., and Commr. of Accounting and Finance; W. H. Fisher, Mayor.

Okla., Enid—City let contract to Burbank-Jackson Construction Co., to pave 7 blocks on N. Washington St., and to Hyde Construction Co., for 4 blocks on W. Cherokee St.; B. F. Lewis, City Engr.

S. C., Bennettsville—Marlboro County let contract to Hendricks & Kennedy, at \$26,600, to lay gravel surface 5.4 mi. road from Bennettsville to Iillon, Federal Aid Proj. No. 196.

S. C., Florence—Florence County plans building, 6½ mi. sand and clay road from Coward to Effingham; Federal Aid granted. Address County Commrs.

S. C., Moncks Corner—State Highway Commission, Columbia, S. C., will receive bids until July 24 for 5.716 mi. sand and clay road from Biggin's Church, Berkeley County, near Moncks Corner to Bonneau; estimated cost \$22,000; Chas. H. Moorefield, State Highway Engr.

S. C., Moncks Corner—State Highway Dept., Columbia, S. C., plans 15 mi. sand clay road from Moncks Corner to Santee River Bridge; Chas. H. Moorefield, State Highway Engr.

S. C., Walterboro—State Highway Comm., Columbia, S. C., will receive bids soon for 16 to 18 mi. sand and clay road on Walterboro-Yemassee road; Chas. H. Moorefield, State Highway Engr.

S. C., York—York County plans hard surfaced roads in County; contemplates voting on \$2,000,000 bonds; L. A. Harris, Sec. County Highway Commrs.

Tenn., Elizabethton—Carter County, let contract to Clint Moore, Columbia, Tenn., for 14 mi. 14-ft. asphaltic concrete road from Washington County line to Sullivan County line, via Elizabethton; estimated cost \$350,000; Carter County has \$140,000 available; State to furnish remainder.

Tenn., Knoxville—City plans improving Cherokee Blvd., from Kingston Pike to River near Scenic Drive. Address Mayor E. W. Neal.

Tenn., Linden—Perry County court authorized issuance \$25,000 bonds to construct road from Lewis county road to Tennessee River.

Tenn., Maryville—Blount County plans re-

building County's part of Maryville-Knoxville Highway; authorized \$150,000 bond issue. Address County Commrs.

Tenn., Memphis—City plans widening from 50 to 80-ft. paving and curbing, Florida St., from South Parkway to City limits; Will Fowler, City Engr.

Tenn., Nashville—City plans surfacing 16th St. Address Board of Public Works.

Tenn., Shelbyville—City plans street improvements; voted \$25,000 bonds. Address The Mayor.

Tex., Bastrop—Bastrop County plans surfacing with bituminous topping section of State Highway No. 20; approximate cost \$22,000; State Highway Commn., granted \$10,500 aid; J. B. Price, County Judge, Bastrop; D. M. Puckett, Res. Engr., Elgin, Tex.

Tex., Beeville—Bee County plans building bituminous macadam road on Berclair road, State Highway No. 12-B; estimated cost \$82,400; Felix J. Hart, County Judge; A. C. Pancoast, County Engr.

Tex., Carizzo Springs—Dimmitt County plans 87 mi. road improvement, including 56 mi. State Highway No. 12-B, from Cotulla to Waverick County line, through Big Wells and Carizzo Springs, and following lateral roads: 9 mi. from Carizzo Springs to Asherton; 12 mi. from Asherton to Brundage; 10 mi. on Crystal City road, from Carizzo Springs to Zavala County line; contemplates voting on \$450,000 bonds. Address County Commrs.

Tex., Coleman—Coleman County let contract to D. H. Buchanan & J. N. Veazey, Temple, Tex., at \$26,142.57 to grade and gravel surface 5.8 mi. State Highway No. 7-A; W. E. Dickerson, County Engr.

Tex., Colorado—City let contract to West Texas Construction Co., Fort Worth, Tex., at \$91,860.28 to pave 7 blocks on 2nd and 2 blocks on Walnut Sts.; 5-in. concrete base; 2-in. bitulithic top.

Tex., Corsicana—Navarro County plans road improvements; will vote July 28 on \$4,750,000 bonds. Address County Commrs.

Tex., Crockett—City let contract to Smith Bros., Crockett, Tex., at \$75,000 for 16,500 sq. yds. concrete base, brick and asphalt top pavement; 3000 ft. curb and gutter; necessary storm drains and 3000 ft. water mains.

Tex., El Paso—City plans paving with Warrenite bitulithic Cotton Ave. from Texas to Wyoming Sts.; estimated cost \$34,153; property owners to pay \$17,706.59; City, \$6367.32; Railway Co., \$8940; W. C. Stewart, City Engr.

Tex., Falfurrias—Brooks County will receive bids until July 14, to grade, construct drainage structures and gravel surface 10.08 mi. State Highway No. 12, from Falfurrias to Kleburg County line; plans, etc. from J. A. Brooks, County Judge, Falfurrias, and from State Highway Dept., Austin.

Tex., Floresville—Wilson County, Road Dist. No. 3, plans hard surfacing road from Bexar and Wilson County line at Saspamco, to about 2 mi. south of Floresville, over State Highway No. 9; will vote Aug. 4 on \$100,000 bonds. Address County Commrs.

Tex., Fort Worth—City plans expending \$17,000 to resurface E. 3rd St. from Commerce to Harding; also plans paving Bryan and Waits Aves., Willing and Rosedale Sts., and Annie and Oleander Sts. Address Sec. Snow.

Tex., Fort Worth—North Texas Traction Co., will pave Forest Park Blvd.

Tex., Fort Worth—Tarrant County let contract to Purvis & Johnson, Fort Worth, at \$7378 to gravel Forest Hill-Rendon road; Emmett Moore, County Judge.

Tex., Fort Worth—Tarrant County plans

7 mi. hard surfaced road on State Highway No. 10; estimated cost \$165,000; State Highway Comm. granted \$124,500 State and Federal Aid; B. A. Davis, County Engr.

Tex., Fort Worth—Tarrant County receives bids until July 10 to surface 3.64 mi. Keller-Denton road; bituminous macadam; Emmett Moore, County Judge; B. A. Davis, County Engr.

Tex., Georgetown—Williamson County plans highway improvements in Road Dist. No. 95; will vote July 21 on \$30,000 bonds; F. D. Love, County Judge; R. A. Nichols, County Engr.

Tex., Hillsboro—Hill County will receive bids until July 14 to grade, construct retaining wall, and gravel surface .55 mi. State Highway No. 6; plans, etc., from Guy R. Johnston, Engr., Hillsboro, and from State Highway Dept., Austin, Tex.

Tex., Houston—E. H. Fleming & Co., plan paving Sunset Blvd., from Main St. to Southampton Development.

Tex., Houston—City received low bids from Scott Shambaugh at \$6994.40 to pave Lovett Blvd., from Mount Vernon to Graustark Aves.; O. F. Holcombe, Mayor.

Tex., Jasper—Jasper County plans 11 mi. 16-ft. gravel road on Buna-Evadale road, State Highway No. 8, from Buna to Hardin County line; estimated cost \$163,000; A. D. Hancock, County Judge; C. P. Hunter, County Engr.

Tex., Johnson City—Blanco County will receive bids until July 25 for 7.49 mi. State Highway No. 20-A, Austin-Fredericksburg road, from Hays County line; west Wm. Martiny, County Judge; J. W. Ruckett, County Engr.

Tex., Lagrange—State Highway Dept., Austin, approved plans for 5.84 mi. 18-ft. gravel road from Lagrange to Boundary line of Precinct No. 3; estimated cost \$99,500; J. P. Ehlinger, County Judge; A. Schlaß, County Engr.

Tex., Mason—Mason County let contract to Fred P. Holt, Austin, to gravel surface 2 mi. State Highway No. 9; Joe Gresham, County Engr.

Tex., Memphis—Hall County, Turkey Road Dist., plans highway improvements; voted \$100,000 bonds. Address A. C. Hoffman, County Judge, Memphis.

Tex., Paris—Lamar County let contract to Julian C. Field & Co., Denison, Tex., at \$68,786, for 2.4 mi. concrete road on State Highway No. 5, east from Blossom.

Tex., Pittsburg—Camp County plans 6.2 mi. gravel bituminous road on State Highway No. 11; J. A. Efrud, County Judge; Chas. C. Chappell, County Engr.

Tex., Uvalde—Uvalde County plans building State Highway No. 3, west of Uvalde to Kinney County line; estimated cost \$70,000; State Highway Comm., granted \$35,000 aid; also plans building Uvalde-LaPryor road; Mack B. Hodges, County Engr.

Tex., Waco—City plans laying No. 2 sidewalk on Vermont Ave. between 9th and 18th Sts.; Geo. D. Field, City Sec.

Virginia—State Highway Dept., Richmond, Va., received low bids for 7 road projects as follows:

Route 28, Albemarle County, 2.13 mi. bituminous macadam from Covesville northward, E. F. White and Co. Conasser, Va. at \$63,426.47.

Route 33, Rockbridge County, 3.05 mi. bituminous macadam from Buffalo Creek to Fancy Hill, Carpenter-Major Brothers, Clifton Forge, Va. at \$128,016.39.

Route 18, Nelson and Amherst Counties, grade and drainage 7.40 mi. between Cliford and Claypool, T. W. Chandler, Virginia, \$72,527.61.

Route 14, Pittsylvania County, 9.6 mi. bituminous macadam and surface treatment from Greta to Chatham, J. T. Plott, Greensboro, N. C. at (approximately) \$75,000.

Route 11, Tazewell County pave with bituminous macadam 1.63 mi. streets in Tazewell, Fuller and Bruce, Norton, Va. at \$38,861.82, (regular.)

Route 32, Orange County, 0.65 mi. bituminous macadam and surface treat streets Gordonsville, Rhoades-Waugh Construction Co., Raccoon Ford, Va. at \$13,030.50. (Lately noted.)

Virginia—State Highway Comm., Richmond, will receive bids until July 25 for 9 road projects as follows:

Henrico County, 10.66 mi. gravel road from Providence Forge to Bottoms Bridge, on Richmond-Newport News, or Coast-to-Capital Highway; King William County, 6.27 mi. soil road from King William Courthouse to Sharon Church; Fauquier County, 2.10 mi. bituminous macadam road, from Elkwood to Remington; Halifax County, .89 mi. soil and concrete road from South Boston, south; Buchanan County, 6.17 mi. bituminous macadam road extension; Dickenson County, 8.7 mi. bituminous macadam road from Hasi to Moss; Fairfax County, 1.41 mi. concrete road from Falls Church to Hall's Hill; Scott County, grade 2.7 mi. between Clinchport and Natural Tunnel.

Wise County, 1.57 mi. concrete from Norton to Big Stone Gap; also will build 4 bridges and approach as follows: James City County, over Diascund Creek, near Liberty, to connect James City and New Kent Counties; New Kent County, 25-ft. and 30-ft. clear span concrete bridges over streams on road between Providence, Forge, and Bottoms Bridge; Roanoke County, 275-ft. truss span steel and concrete bridge over Roanoke River at Kumlis, about 18 mi. west of Roanoke; Rockbridge and Augusta Counties, bituminous macadam approach to overhead crossing over Baltimore & Ohio Ry.; H. G. Shirley, Chmn. of Highway Comm.

Va., Bristol—Details under Land Developments.

Va., Bristol—City plans paving Commonwealth Ave., 335 ft. from State St.; G. S. Keller, City Mgr.; W. H. Rouse, Mayor.

Va., Graham—Town let contract to Tabor & McBride, at about \$40,000 for 4/5 mi. concrete pavement; Chas. B. Davis, Engr., Graham and Bristol, Va.

Va., Lynchburg—City plans improving Dinwiddie St. from Pansy to Bedford, Pansy, from Dinwiddie to Rivermont Ave., and Bedford Ave. from Dinwiddie to Amherst; slag macadam; tar surface; J. F. McCarron, Supt. of City Dept. of Public Works.

Va., Portsmouth—Norfolk County will receive bids soon for 2 sections of roads as follows: Centerville Turnpike from Butt's Station to Albemarle & Chesapeake Canal; Elbow road, from Route No. 27 to Elbow Church; waterbound macadam; also plans building concrete bridge over Indian River on Fairview road. Address County Commrs.

W. Va., Bluefield—City plans expending \$200,000 for street widening and improving; will let contract probably in Sept.; A. B. Cutter, Engr.; Clarence E. Ridley, City Mgr. (Lately noted.)

W. Va., Huntington—City will receive bids until July 24 to resurface 3rd Ave. from 8th to 23rd Sts.; asphalt over present bricks, on sand and gravel base; also 8th St. between 3rd and 4th Aves., and 4th Ave. between 8th and 9th Sts.; will grade, curb and pave 11th Ave. from 14th to 16th Sts.; A. B. Hunt, City Clk.; A. B. Maupin, City Engr.

W. Va., Philippi—City plans expending \$50,000 for grading and paving with concrete 1 mi. streets; A. Wolverton, Engr.

W. Va., Warwood—Details under Land Developments.

W. Va., Williamson—Mingo County will receive bids until July 27 to grade, construct drainage structures, etc. on 2 sections of roads as follows:

4.26 mi. Four Pole-Gilbert Creek road, from Sta. 7 plus 00 to Sta. 214 plus 40, Proj. 14; 4.5 mi. War Eagle-Four Pole road, from Sta. 0 plus 00, to Sta. 238 plus 50; Proj. No. 15, plans, etc. from County Road Engr.

Sewer Construction.

Ala., Hartselle—Details under Water Works.

Ala., Mobile—Details under Water Works. Fla., Tampa—Details under Road and Street Construction.

Ark., De Queen—Abe Collins, Sec. Board of Improvement, Sewer Dist., receives bids until July 12 to furnish materials and construct sanitary sewer; work includes 16,040 ft. of 8 to 15-in. vitrified pipe, 23,760 ft. of 6-in. vit. pipe, 35,590 ft. of trench 0 to 8 ft. deep, 4220 ft. of 8 to 16-ft. deep, 20 cu. yds. rock excavation in trench, 800 cu. yds. earth embankment, 65 standard manholes and 80 ft. of additional depth, 9 flush tanks, 49 lamp holes, 9 cleanouts 600 cu. yds. excavation at disposal plant and disposal plant; W. L. Winters, Engr., Fort Smith, Ark.

Fla., Miami—City, F. H. Wharton, City Mgr., will expend \$125,000 in construction of sewer system; will open machinery and construction bids July 17. (Lately noted.)

Fla., Tallahassee—Details under Road and Street Construction.

Ky., Drakesboro—Details under Water Works.

La., Rayville—City let contract to McIntosh Construction Co. of Oklahoma City, Okla., for construction of sewer system; cost \$50,000. (Lately noted.)

La., Winnfield—City considering construction of sewerage system. J. R. Gibbs, Mayor.

Mo., Kansas City—Details under Land Developments.

Mo., Trenton—City let contract at \$39,902 to Tom Johnson of Eagle Grove, Ia., to construct sanitary sewer in District No. 25. (Lately noted.)

N. C., Burlington—City let contract to Burlington Construction Co. to install fire mains and sanitary sewer system. (Lately noted.)

S. C., Andrews—Details under Water Works.

Tex., Crockett—Details under Road and Street Construction.

Tex., Fort Worth—City let contract to McKenzie Construction Co., to construct two additional filter beds to sewage disposal plant at cost of \$400,000.

Tex., Houston—E. H. Fleming & Co. will let contract soon for construction of sewer system in Southampton.

Va., Bristol—Details under Land Developments.

Va., Ocean View—City, Walter H. Taylor, Director of Public Works, Norfolk, Va., will construct pumping station to handle Ocean View sewerage, will lay about 3 mi. wooden pipe; cost \$308,230.

W. Va., Warwood—Details under Land Developments.

Street Railways.

Tex., Fort Worth—Northern Texas Traction Co. will extend track on Riverside line 14,000 feet; will also extend Oakland division track 3 mi. via Sycamore Heights to city limits, besides double tracking part of Forest Park Boulevard. Estimated cost \$416,000. Contract let to Stone & Webster, 147 Milk St., Boston, Mass.

Telephone Systems.

Ky., Whitesville—Berry and Pellville Telephone Co., incorporated by W. F. Holland, G. A. Weller, Lonnie Cooper.

Okla., Hester—Hester Telephone Co., incorporated by L. P. Thomas, B. W. Worthington, W. J. Radney.

Tenn., Memphis—Postal Telegraph Co., 118 Madison Ave., have leased old Park Hotel building on South Court Ave., will remodel, estimated cost between \$50,000 and \$75,000.

Tex., Greenville—Greenville Telephone Co. let contract to the Westinghouse Electric Co., of New York, for additional equipment; will also make other improvements; estimated cost \$15,000.

Tex., Waco—Texas Telephone Co., has site on N. Ninth St., will later probably erect building.

Textile Mills.

Ala., Selma—J. F. Ames will erect bag manufacturing plant.

Ala., Selma—J. R. Millar, of Oakland, Cal., has acquired textile mill of Selma Mfg. Co. consisting of about 11,000 spindles and will improve, will install 3000 new spindles, erect dwelling for employees, etc.; mill will be known as Alabama Mill and will be under management of E. E. Hendrix.

N. C., St. Pauls—McEachern Cotton Mill Co. increased capital to \$400,000.

N. C., Rocky Mount—Rocky Mount Mfg. Co. let contract for addition to plant. Lockwood, Greene & Co., Engrs., Charlotte, N. C. (Lately noted.)

Okla., Muskogee—J. E. Douglas, of Guthrie, and O. O. Owens, of Tulsa, Okla., interested in erection of cotton twine mill at Third and Fon du Lac Sts.; cost about \$125,000.

S. C., Greenville—A. M. Law, Spartanburg, W. J. Thackston, Greenville, and others are negotiating for the purchase of mills of Victor Monaghan Co., including plant at Greenville, Walhalla, Seneca, three at Greer, Jonesville and Union. (Victor Monaghan Co., lately noted to build addition to Victor Mill.)

Tenn., Knoxville—Brookside Mills will erect addition to factory to be used as pickle mill; J. M. Dunn & Son, Contr.

Tex., Waco—Albert T. Clifton is Chmn. of Comm. interested in erection of plant for dyeing and finishing of textiles.

Water Works.

Ala., Hartselle—City considering installing water works and sewerage plant. Address The Mayor.

Ala., Mobile—City contemplates voting on \$350,000 bonds for water and sewer system and street improvements. Address The Mayor.

Ark., Altheimer—City, Jake Cohn, Sec. Water Comsn., opens bids July 10 for construction of water works plant; will install well about 800 ft. deep, 60,000 gal. tank with 125 ft. tower also pumping equipment, piping for mains, etc.; cost of plant \$20,000; Fred Bennett, Engr., Citizens Bank Bldg., Pine Bluff, Ark. Lately noted. (See Machinery Wanted—Water Works Equipment.)

Ark., De Queen—L. D. McCown, Sec. Board of Water Works Improvement, Dist. No. 2, opens bids July 12 to construct and furnish materials for water works extension; work includes furnishing and laying 23,000 ft. of 4, 6 and 8-in. cast iron pipe; taking up and relaying 5000 ft. of 2-in. W. I. pipe and 4-in. C. I. pipe; furnishing and setting 44 2-in. to 10-in. V. D. valves with valve boxes; furnish and setting five 4 to 10-in. check valves; furnish and setting 62 standard 4-in. fire hydrants; building concrete reservoir, brick pump house, 2 well houses, furnishing and installing 500 G. P. M. underwriters centrifugal fire pump direct connected 50 H. P. motor and placing 12 cu. yds. of concrete in footings; W. L. Winters, Engr., Fort Smith, Ark.

Ark., Van Buren—Board of Improvement let the following contract for water works to Ajax Construction Co., of Oklahoma City, and J. S. Terry, of Poteau, Okla., to construct water works system; Section B of filtration plant to International Filter Co., 38 S. Dearborn St., Chicago, Ill.; Section C for pumps to Reeves and Skinner Machinery Co., 2211 Olive St., St. Louis, Mo.; Section D tank of 30,000 gal. capacity to Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.; Section E—meters and hydrants to Columbian Iron Works, Chattanooga, Tenn.; W. L. Winters, Engr. (Lately noted.)

Fla., Eagle Lake—City voted \$12,500 bonds for water works. Address The Mayor.

Ky., Drakesboro—Town is interested in water and ice plant and sewer system. E. H. Flanagan, Cash. of Citizens Bank may be addressed.

Ky., Morganfield—City, Truman Drury, interested in establishing water supply system from Ohio River, distance of 5 mi.

Mo., Kansas City—Details under Land Developments.

Mo., King City—Beeson Machinery Co. of Kansas City, Mo., has contract at \$50,340 to erect water works plant.

Mo., Kirksville—City let general contract for water works system to E. K. Ladd Construction Co., Kansas City, at \$32,215.80; contract for clear water well and filter bed buildings to Carothers Construction Co., Kansas City; filter equipment to be furnished by Bacharock Co. of Kansas City at \$7567; valves and hydrants to Ludlow Valve Mfg. Co. of Kansas City at \$8334. (Lately noted.)

S. C., Andrews—City or Andrews, votes July 10 on \$100,000 bonds for installing water and sewerage system; Ryan Engineering Co., Columbia, S. C., will design and supervise construction.

Tenn., Bristol—City, L. H. Gammon, Mayor, let contract to Ambler Engineering Co., of Richmond, Va., to work out details for construction of filter plant at Henry Preston Springs; city also let contract for complete survey of proposed hydro electric power plant on Holston River. (Lately noted.)

Tenn., Knoxville—Bailey Wray, Chmn. of Comm. to investigate advisability of improving water supply.

Tenn., Madisonville—City let contract at \$38,000 to Fred Cantrell of Chattanooga, Tenn. to construct waterworks system. (Lately noted.)

Tex., Baird—City let contract to J. U. Johnson of Eastland, Tex. and J. W. Moore, of Lampasas, Tex., have contract for installing water works system; cost \$45,000. (Lately noted.)

Tex., Crockett—Details under Road and Street Construction.

Tex., Ennis—City is considering increasing water supply, pumping water 4 mi. west of town. Address The Mayor.

Tex., Fort Worth—City Commission will open bids July 24 for laying water mains and lateral pipes in South Fort Worth.

Tex., Lampasas—City will extend water works system, cost about \$15,000; P. L. Walker, Mayor.

Tex., Lufkin—City will receive bids until July 16 to construct waterworks, pumping plant buildings, main building of brick, steel skeleton and traveling crane; inside dimensions are: 26x85-ft., 20 ft. high; also two other small brick buildings; C. N. Humason, City Mgr.; H. N. Roberts, Conslt. Engr., 4227 Irving Ave., Dallas, Tex.

Va., Danville—Sanitary Engr. Division of State Board of Health, Richmond, Va. approved plans for remodeling filtration plant; will increase capacity to 5,000,000 gals. daily capacity.

Va., Norfolk—City opens bids July 14 for laying water mains, valves and hydrants in certain streets, approximately 1260 ft. of 8-in., 3000 ft. of 6-in. pipe, 37 gate valves and 12 hydrants; Chas. E. Ashburner, City Mgr.; Walter H. Taylor, Director of Public Works.

W. Va., Charleston—West Virginia Water & Electric Co., C. S. Dawson, Mgr., will install three water mains, 13 fire hydrants and centrifugal pump in South Hills; cost \$15,000. (Lately noted.)

W. Va., Mill Creek—Town voted \$12,000 bonds for installation of water system; will lay 4-in. castiron pipe. Address The Mayor.

Woodworking Plants.

Ala., Decatur—Handles—Patrick McCrystal, of Memphis, Tenn., has acquired established plant of the Peter-Sealon Handle Factory, will improve, increasing capacity; will manufacture handles of all kinds.

Ark., Kingston—Kingston Spoke Factory, H. C. Field, Mgr. will rebuild spoke plant, burned at loss of \$10,000.

N. C., Durham—U. S. Heading Co., capital \$200,000, incorporated with Nathan Lunsford, Pres., Roxboro; T. B. Christian, Sec.; have acquired Lunsford-Losson Co.'s plant; will enlarge plant, manufacture shipping crates.

N. C., Hickory—Reynolds Manufacturing Co., E. W. Reynolds, Mgr., will establish furniture manufacturing plant.

N. C., Hickory—Hickory Chair Manufacturing Co., Geo. Bailey, Sec.-Mgr., will erect 225x100-ft. building, frame, metal clad with fire walls; construction by owners. (Lately noted burned at loss of \$125,000.)

Tenn., Knoxville—Quality Carriage Co., increased capital to \$20,000.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal.

Ala., Reform—Fellowship Lodge, A. F. & A. M., Dr. G. B. Wimberly, Worshipful Master, will erect \$20,000 building on Graham St.; pressed brick; stone trim; 3 stories, first two for business purposes, lodge hall on third.

Fla., Vero—Ancient Free and Accepted Masons will erect building, 19th St. and Seminole Ave.; 3 stories; fireproof; cost about \$40,000.

Fla., West Palm Beach—American Legion, Jerome E. Wideman, member, Bldg. Comm., plans to erect 3-story building on present site; first 2 floors for business purposes, lodge room on third.

La., New Orleans—Benevolent Protective Order of Elks, 121 Elk Place, John P. Sullivan, Chmn., Bldg. Comm., rejected bids for alterations and additions to Elks Home; Rathbone DeBuys, Archt.; E. A. Christy, Asso. Archt.; both 1406 Hibernia Bank Bldg., New Orleans. (Lately noted.)

Miss., Meridan—Hamasa Temple, A. F. & A. M., I. M. Moody, Chmn., Bldg. Comm., will erect \$150,000 to \$200,000 mosque; 187x125 ft.; 3 stories; reinforced concrete and steel; Emile Weil, Archt., Whitney Central Bldg., New Orleans; bids opened July 30; following contractors estimating: John H. Finn; Hancock & McArthur; Wetmore & Priestner; all Meridan; Brashears Construction Co., Texarkana, Tex.; T. S. Moudy & Co., Chattanooga, Tenn.; J. V. & R. T. Burkes, New Orleans; Stewart-McGehee Construction Co., Little Rock, Ark., and Baton Rouge, La. Previously noted.)

Mo., Atlantont—Ancient Free and Accepted Masons plan to erect lodge hall to replace burned structure.

N. C., Gastonia—Young Men's Christian Assn., J. K. Dixon, does not contemplate erecting building at any time soon. (Lately noted.)

Tenn., Chattanooga—Knights of Pythias Widows' and Orphans' Home, M. F. Martin, Supt., will erect \$40,000 building, Tullahoma Rd.; R. H. Hunt, Archt., Chattanooga.

Tex., Colorado—American Legion will erect \$12,000 memorial building, 3rd and Chestnut Sts.

Tex., Sherman—Ancient Free and Accepted Masons will erect \$40,000, 3-story and basement Temple; brick and stone; 45x95 ft.; John Tuloch, 213 M. & P. Bank Bldg. and Clyce & Rolfe, 306 Commercial Bank Bldg., Asso. Archts.; both Sweetwater.

Bank and Office.

Ala., Ensley—Scott Lumber Co., Roscoe E. Scott, Sec., will erect office building and warehouses.

Ala., Tuscaloosa—Merchants Bank & Trust Co., C. B. Verner, Pres., will erect 10-story and basement building, Broad St. and Greensboro Ave.; cost \$350,000, exclusive of equipment; 52x123 ft.; steel frame; brick and hollow tile; terra cotta trim; rift pine on concrete and tile floors; reinforced concrete foundation; tar and gravel roof; D. O. Whildin, Archt., Birmingham; A. Laycock & Son, Tuscaloosa, contr. for foundation. (Lately noted.)

Fla., Babson Park—Babson Statistical Organization, Wellesley, Mass., is reported to erect buildings; main building to be 2 stories, stucco, Spanish mission type.

Fla., Tampa—Florida Realty Corp., Vance

W. Helm, Pres., organized to erect 25-story Guaranty Title Bldg., Franklin and Madison Sts., for offices; 60x105 ft.; circulating ice water, compressed air for dentists, etc.; 8 elevators; M. Leo Elliott, Archt., Tampa; Anderson-Doddrige & Co., Inc., to underwrite \$1,400,000 bonds to finance construction.

La., New Orleans—S. D. Hollander will erect 2-story, 65x75-ft. addition to present 2-story Hollander Bldg., 540 Camp St., and 3-story, 75x100-ft. addition at rear; steel frame; hollow tile walls faced with brick; concrete floors; composition roofs; fireproof; cost \$75,000 to \$80,000; front portion for industrial offices, garage and auto repair shop in rear; 8x20-ft. elevator for rear addition; Montz & Maroney, Archts., 707 Title Guarantee Bldg., New Orleans; day labor.

La., Ruston—Ruston State Bank will erect 2-story concrete and stone building; Drago & King, Archts., Monroe; bids opened July 11.

Miss., Jackson—Lamar Life Insurance Co., C. W. Welty, Vice-Pres., will erect \$500,000 office building on old Hotel Norville site; steel, concrete, stone, brick and terra cotta; 10 or 11 stories; first 2 floors, 82x120 ft., balance 60x120 ft.; about 200 offices; Sanguinet, Staats & Hedrick, Archts., Fort Worth, Tex.; N. W. Overstreet, Asso. Archt., Jackson. (Lately noted.)

Mo., St. Louis—Laclede Trust Co., H. W. Kroeger, Vice Pres.-Sec., will not remodel Hotel Garni Bldg., Olive St. and Jefferson Ave., until expiration of present lease in about one year. (Lately noted.)

Okla., Bartlesville—Union National Bank, H. V. Foster, Pres., will erect \$250,000 building, 3rd and Johnstone Sts.; 6 stories; 50x90 ft.; first story, dressed stone, face brick above; reinforced concrete frame.

Tenn., Memphis—Dave Derron will erect 8-story office building, Court Ave. and N. 3rd St.; reinforced concrete; 75x148½ ft.; cost \$600,000; Pfeil & Awsumb, Archts., Memphis.

W. Va., Bluefield—Cole Realty Co. will erect 4-story office building, to be leased by Appalachian Power Co.; Mahood & Van Dusen, Archts., Bluefield.

Churches.

Ark., Hot Springs—St. Mary's Catholic Church, Wittington and Central Aves., will erect \$100,000 structure; Mission design; stucco walls; Spanish tile roof. Address The Pastor.

Ark., Pine Bluff—First Baptist Church plans to purchase site, 5th and Beech St., and erect \$150,000 church building. Address The Pastor.

Fla., Plant City—First Methodist Church, E. T. Roux, Chmn., Bldg. Comm., will erect building, Evers and Baker Sts.; Colonial design; rough faced brick; stone trim; auditorium and balcony to seat 800; Sunday school assembly room, kitchen with forced ventilation, etc., in basement; Sunday school section 3 stories; warm air heating system; Frank A. Winn, Jr., Archt., Tampa; construction by day labor under supervision of Chester C. Carlton, Chmn., Board of Stewards. (Lately noted to let contract about July 20.)

Fla., Wauchula—Wauchula Baptist Church will enlarge and remodel present building; construct addition, 46x65 ft.; 3 stories; install pipe organ, etc.; cost \$250,000; J. E. Greene, Archt., Birmingham, Ala.

Ky., Taylorsville—Taylorsville Baptist Church, Rev. A. Mack Parrish, Pastor, plans to remodel and erect Sunday School rooms; cost \$10,000.

La., Lake Charles—Woodbury Congregational Church, Colored, will erect \$15,000 brick building on Boulevard; 38x68 ft.; 1 story and balcony; wood floors; concrete foundation; composition shingle roof; R. S. McCook, Archt., Lake Charles; let contract July 16. (Lately noted.)

La., New Orleans—Protestant Episcopal Church of Annunciation will erect 1-story chapel, 30x50 ft., and 2-story parish house, 45x60 ft.; face brick; stone trim; pile foundations; second story of parish house to be frame; Sam Stone, Jr., Archt., 714 Union St., New Orleans.

Md., Salisbury—St. Peter's P. E. Church, Rev. H. F. Kloman, Rector will erect \$50,000 parish house; 2 stories with 14-ft. basement; auditorium, classrooms and chapel on first floor, lecture and Sunday school rooms on second; T. L. Ruark, and others, Bldg. Comm.

Md., Baltimore—Wilkins Ave. M. E. Church, South, Rev. H. P. Baker, Pastor, rejected bids to erect \$100,000 church and Sunday school building; brick, stone, steel and concrete; Herbert L. Cain, Archt., 12 N. 9th St., Richmond, Va.; plans revised and resubmitted to contractors. (Lately noted.)

Miss., Merigold—Baptist Church, J. E. Kinsey, will erect \$30,000 brick building; 52x90 ft.; 2 stories; pine floors; concrete foundation; metal ceiling; contract not let.

Mo., Maryville—Methodist Episcopal Church, South, will erect \$25,000 building. Address The Pastor.

Mo., St. Joseph—King Hill Christian Church plans to remodel building; cost \$10,000 to \$12,000. Address The Pastor.

N. C., Charlotte—Pritchard Memorial Baptist Church, South Boulevard and Templeton Ave., C. M. Farris, Chmn., Bldg. Comm., will remodel and enlarge present main auditorium to accommodate 750, raze Sunday school building and erect new building; pressed brick; limestone trim; south wing, 3 stories, north wing, 2 stories; accommodate 900; J. M. McMichael, Archt., Charlotte.

N. C., Concord—Methodist Protestant Church plans to remodel structure, erect additional rooms, tower and install new seating and electrical equipment, etc. Address The Pastor.

N. C., Rutherfordton—First Methodist Church will brick veneer present frame church and parsonage and erect new brick building; Colonial design; auditorium to seat 500, Sunday school 300; pipe organ; cost \$50,000; Martin E. Boyer, Archt., Charlotte. (Previously noted.)

Okla., Oklahoma City—Kelham Avenue Baptist Church will erect \$30,000 church, E. Twenty-third St. and Prospect Ave.; auditorium to seat 650; 36 classrooms. Address The Pastor.

Okla., Weleetka—Christian Church, Rev. F. H. Shaul, Pastor, will erect \$25,000 building; basement; construction begun.

S. C., Columbia—Ebenezer Lutheran Church, Rev. P. D. Brown, Pastor, has no plans at present for church and parsonage on site recently purchased at Sumter and Richland Sts. (Lately noted.)

S. C., Honea Path—Chiquola Baptist Church plans to erect \$10,000 building. Address The Pastor.

Tenn., Chattanooga—Immanuel Lutheran Church, Hickory and Bailey Sts., Highland Park, W. J. Boerger, Chmn., Bldg. Comm., will erect \$5000 one-story frame school

building and \$6000 parsonage adjoining church.

Tenn., Memphis—Madison Heights Methodist Church, Rev. T. W. Lewis, Pastor, has completed improvements to church, lately noted; will install pipe organ, contract let.

Tenn., Nashville—First Unitarian Church, Rev. Cyril Wyche, Pastor, plans to erect \$75,000 building.

Tex., Calvert—Methodist Episcopal Church, South, will receive bids until July 24 to erect brick veneer building; cost \$20,000; plans and specifications from Paul G. Silber & Co., Archts., 331 Bedell Bldg., San Antonio; separate bids for electric wiring, plumbing and hot air heating. (Lately noted.)

Tex., Corsicana—First Baptist Church, Rev. E. P. Kennedy, Pastor, will erect building on present site; O. L. Albritton, Chmn., Bldg. Comm.

Tex., Fort Worth—North Fort Worth Baptist Church, Rev. W. W. Rivers, Pastor, plans to erect building.

Tex., Groveton—Rev. Sid Williams is pastor of church to erect \$25,000 building.

Tex., Houston—Bethel Baptist Church has permit to erect \$20,000 building. Address The Pastor.

Tex., Marshall—Church of Christ, Scientist, will erect building, Burleson and Franklin Sts.; cost \$12,000; brick; columns. Address The Reader.

Tex., San Antonio—West Woodlawn Methodist Church will erect tile and stucco building; reinforced concrete frame; Morris & Noonan, Archts., San Antonio; receiving bids.

Tex., Smithville—M. E. Church will receive bids until July 23 to erect brick building; cost \$20,000; plans and specifications from Paul G. Silber & Co., Archts., 331 Bedell Bldg., San Antonio; separate bids for electric wiring, plumbing and hot air heating. (Lately noted.)

W. Va., Huntington—Ohev Shalom Temple, Abe Solof, Chmn. Bldg. and Funds Comm., plans to erect temple, 10th avenue and 10th St.

W. Va., Wheeling—Warwood M. E. Church, Rev. P. Musgrave, Pastor, will erect \$40,000 stone and brick building, Richland Ave. and 16th St.

City and County.

Ark., Paragould—Auditorium—City is considering erecting public auditorium probably Pruet and Poplar Sts.; 2 stories; two 25x100-ft stores on first floor, convention hall or auditorium on second; cost \$20,000 to \$30,000; may issue bonds. Address The Mayor.

Fla., Jacksonville—Clubhouse—City plans to erect bungalow type clubhouse at municipal golf course, Moncrief Hgts.; Rutledge Holmes, Archt., prepared plans for \$15,000 building; \$9500 available.

Fla., Tampa—Auditorium, Market, etc.—City Comm., S. L. Lowry, Chmn., will meet Sept. 4 to consider \$2,000,000 bond issue, to include amount for auditorium and public market.

Ga., Savannah—Market—City, Dr. Herman W. Hesse, member, Market Comm., plans to remodel municipal market; install 32 refrigerators, new stalls, etc.

Miss., Natchez—City Hall—City, Luther A. Whittington, Mayor, and Board of Aldermen will receive competitive plans until July 24 for city hall building.

Miss., Rosedale—Jail—Bolivar County Board of Supervisors will receive bids until Aug. 6 to erect jail; cost \$35,000 complete, including tool proof jail cells; brick; concrete

floors; Claude H. Lindsley, Archt., 50-53 Kress Bldg., Jackson.

Mo., Springfield—Police Station—City, W. L. McCurdy, Commr., plans to erect building for police headquarters; tentative sketches by W. G. Mackey, Bldg. Inspector, provide structure 36x60 ft.; 2 stories, brick or reinforced concrete.

N. C., Greensboro—Convict Home—Guilford County Commrs. are considering erecting convict stockade at central camp; 2 wings; accommodate 135; tentative plans by Harry Barton, Greensboro.

N. C., Lumberton—Home—Robeson County will erect home; hollow fireproof tile; concrete floors; vaults; ventilators; steel sash and trim; wire glass; Wilson & Berryman, Archts., Columbia, S. C., and Wilson and Gastonia, N. C.; date of award not set.

N. C., Shelby—Jail—Cleveland County will erect 2-story jail; 42x96 ft.; reinforced concrete floors and foundation; tile and composition roof; direct radiation steam heat; city lights; metal doors; ventilators; steel sash and trim; wire glass; jail cells; Wilson & Berryman, Archts., Columbia, S. C., and Wilson and Gastonia, N. C.; date of award not decided. (Lately noted.)

Okl., McAlester—Courthouse—Pittsburgh County will call special election July 12 to vote on \$300,000 courthouse bonds. Address County Commrs.

Tex., Abilene—Municipal Building—City purchased site at N. 2nd and Cedar Sts. for municipal building. Address The Mayor.

Tex., Elgin—Courthouse—Bastrop County will remodel interior of courthouse, stucco exterior and replace roof; C. H. Page & Bro., Archts., Austin.

Tex., Houston—Zoo—City, O. F. Holcombe, Mayor, opened bids to erect first unit of city zoo, Cleveland Park; W. A. Dowdy, City Archt., 207 City Hall; M. C. Parker, Houston, low bidder at \$10,150. (Lately noted.)

Tex., Lubbock—Park Building—Lubbock County, P. F. Brown, County Judge, will receive bids until July 17 to erect 1-story building in Lubbock County Park; plans and specifications from County Clerk.

Va., Richmond—Courthouse—City, Wm. M. Myers, Director of Public Safety, Room No. 306, City Hall, will receive bids until July 26 for addition to and remodeling of Hastings Courthouse, Part II, Tenth and Hull Sts.; Carneal & Johnston, Archts., Richmond; plans and specifications from office of Bldg. Inspector, Room No. 305, City Hall.

Dwellings.

Ala., Gadsden—Jeffy Echols, 306 S. 4th St., plans to rebuild residence noted burned.

Ark., Rogers—W. H. McAbee, Wichita Falls, Tex., plans to erect number of cottages at summer resort near Monte Ne, to be called Willola.

Fla., Miami Beach—City Builders' Finance Co. is erecting duplex building, West Ave., south of Lincoln Rd., and plans to erect another on West Ave., north of Lincoln Rd.; total of 5 planned for year.

Fla., St. Petersburg—C. M. Roser will erect \$10,000 brick and tile bungalow, 7th Ave., South, near 8th St.; 10 rooms.

Fla., St. Petersburg—Schooley-Murphy Co. will erect \$14,000 dwelling, 1426 Euclid Ave., North; 2 stories; tile and stucco; 8 rooms; owner builds.

Ky., Dalna—Consolidated Fuel Co. will erect 20 miners' houses; contract at once.

Ky., Sergeant—Apex Coal Co. will erect 10 miners' houses; contract at once.

Ky., Whitesburg—M. D. Lewis will erect \$10,000 residence on Main St.

La., New Orleans—Ed. L. Markle, archt. and contr., and O. V. Elmer, Elmer Candy Co., purchased tract, Galvez St. between Napoleon Ave. and Upperline St., and will develop subdivision; will erect 8 to 12 Spanish type dwellings; cost \$8000 to \$15,000 each; also make street and sidewalk improvements, etc.; total cost \$175,000.

Md., Baltimore—Arthur E. Reinheimer, 32 South St., will erect three 2½-story frame dwellings, east side Charlotte Ave., south of Emmel Ave.; total cost \$12,000.

Md., Baltimore—Walter Scott will erect 2-story duplex building, Roland Ave. near Lake Ave.; brick; probably hardwood floors; slate roof; Clyde N. & Nelson Friz, Archts., Baltimore; bids opened July 10.

Md., Baltimore—J. E. Stansbury, Pres., J. E. Stansbury, Inc., 2852 Pennsylvania Ave., and others, will erect 5 two-story brick dwellings, 2200-08 N. Monroe St.; one 22x34 x29 ft., four 20x30x25 ft.

Md., Baltimore—Welsh Construction Co., 11 E. Fayette St., will erect 7 one-story frame bungalows, N. E. cor. Brightwood Ave. and Auburn St.; 26x31 ft.; total cost \$22,000; Geo. Wessel, Archt., 3001 Lyttleton Rd., Baltimore; owner builds. (Lately noted.)

Miss., Laurel—Chamber of Commerce is promoting company to develop 1500 acres of land near Laurel; will reserve site for community center with school, church, etc., and divide balance into 25 farms, each to have a 4 to 6-room residence, barn and poultry house, well, etc.

Mo., Bethany—John T. Morgan purchased lot on Alder St. and plans to erect residence in fall.

Mo., Cartersville—Thelst Shelton, Pres., Miners Bank of Cartersville, will erect \$20,000 residence in Morgan Heights.

Mo., Kansas City—Richard E. Wiles, Simons-Wiles Motors, purchased site on 57th St. west of Ward Parkway and is reported to erect residence.

Mo., Kansas City—Marlborough Orchard Co., E. L. Winn, Sec.-Mgr., care E. L. Winn Construction Co., will develop 23-acre tract, 85th and Woodland Aves., Jackson County; will erect number of 4 and 5-room dwellings; plans and construction by Mr. Winn.

Mo., Maryville—Ernest Glover will erect residence, Fifth and Market Sts.

N. C., Charlotte—E. F. Gallagher will erect 10 California type bungalows, on Andriell Terrace; to sell for from \$5000 to \$6000 each; construction to begin Aug. 1.

N. C., Concord—C. A. Cannon will erect \$50,000 to \$75,000 residence, N. Union St.; Georgian design; foundation and first story of concrete, remaining 2 stories of clapboard; green glazed tile roof; 8 baths, sleeping porches, balconies, stone balustrade on terrace, etc.; playroom with stage, dressing rooms, etc., on third floor; 3-car garage with servants' quarters and bath in rear; Martin E. Boyer, Archt., Brevard Court, Charlotte.

N. C., Lumberton—Mrs. Kate Thompson will erect \$12,000 residence, N. Elm St.; 7 rooms; brick.

Okl., Tulsa—Walter Mount plans to erect \$75,000 residence, 27th and Peoria Sts.

S. C., Conway—D. M. Burroughs will erect \$17,000 residence; 2 stories; 8 rooms; wood floors; brick foundation; slate roof; Wilson & Berryman, Archts., 804 Palmetto Bldg., Columbia, will receive bids until July 10. (Lately noted.)

S. C., Greenville—Mrs. R. S. Aiton will erect \$20,000 residence on James St.

S. C., Greenville—L. A. Mills will erect \$30,000 brick veneer residence, Augusta Rd. section near Country Club; 2 stories; 40x60

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

fr.: hardwood and concrete floors; concrete foundation; slate roof; plaster board; interior tile; ventilators; steel sash and trim; steam heat. (Lately noted.)

S. C., Newberry—First Presbyterian Church will not erect manse as lately reported.

S. C., Spartanburg—J. W. Manfield will erect \$10,000 two-story residence, Avant St.

Tenn., Chattanooga—W. R. Jones will erect 4 one-story frame dwellings, north side 13th St., near Dodds Ave.; total cost \$14,000.

Tenn., Knoxville—F. B. Cooley will erect \$13,000 residence, 1817 W. Cinch Ave.; 2 stories; frame and brick veneer.

Tenn., Memphis—Dr. Louis Levy will erect residence, Highland Ave. and Poplar St., Red Acres subdivision.

Tenn., Memphis—Mrs. Rose Raymond will erect \$12,600 residence, North Parkway and Decatur St.; brick veneer; rubble stone trim; tile roof; 2 baths; Estes W. Mann, Archt., Memphis.

Tenn., Memphis—Moran Bros. are erecting 12-room brick veneer duplex building, 903-05 Faxon Ave.

Tex., Dallas—Boyd Brown will erect \$10,000 residence, 4321 Rawlins St.; 8 rooms; brick veneer.

Tex., Dallas—J. D. Pope and Watt Perry will erect \$15,000, eight-room, brick veneer residence, 941 Linden St.

Tex., Dallas—W. B. Thornton will erect \$10,000 residence, 803 Woodlawn St.; 8 rooms; brick veneer.

Tex., Dallas—W. H. Fritz, 102 N. Mount Clair Ave., will erect \$12,000 dwelling.

Tex., Houston—Craig Belk, Chronicle Bldg., will erect two 5-room, brick veneer dwellings; total cost \$11,000.

Tex., Houston—Houston Lumber & Bldg. Co. will erect 6 five-room frame dwellings; total cost \$20,000.

Tex., Paris—E. D. Norment will erect \$15,000, two-story, brick veneer residence; Flint & Broad, Archts., 311 Andrews Bldg., Dallas.

Tex., San Antonio—Tom E. Hogg will erect 2-story tile and stucco residence, Bushnell Place; Atlee B. & Robt. M. Ayres, Archts., San Antonio.

Tex., San Antonio—Wm. F. Schultz will erect residence on King's Highway; Ideal brick walls; tile roof; Harvey L. Page, Archt., San Antonio.

Tex., San Antonio—Conness Realty Co., J. F. Wagner, in charge of office at Lakeview Addition, is completing first 10 of 250 dwellings to be erected in Lakeview Addition; cost \$2500 to \$3750 each; 4 to 6 rooms; built-in features; garages.

Tex., San Antonio—C. L. Bell will erect \$10,000 residence and garage, Mulberry and Calaveras Sts.; 7 rooms.

Va., Richmond—P. A. McCarthy, care O. K. Asbury, Archt., 110 N. 7th St., will erect \$14,500 residence, 1220 W. Franklin St.; 2 stories; 26x50x20 ft.; cinder block foundation and construction; slate roof; wood floors; hot water heat; owner builds.

W. Va., Keystone—Mose Hyman, Welch, will erect 7 dwellings, Clifton St. and Highland Ave.

Government and State.

Ala., Anniston—Post Office and Courthouse—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will erect extension to building and driveway at post office and courthouse; Algernon Blair, Montgomery, low bidder at \$17,971. (Lately noted.)

D. C., Washington—Home—Dist. Comn., J.

Franklin Bell, Engr. Commr., will erect home for feeble-minded; site not selected.

La., Baton Rouge—Post Office—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will remodel and enlarge post office; Garber & Cissel, Bethlehem, Pa., low bidders at \$16,700. (Lately noted.)

S. C., Spartanburg—Post Office—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until Aug. 6 to construct 1-story, brick, non-fireproof extension, approximately 23x46 ft., and extension of present brick driveway at post office; drawings and specifications from Custodian at site or from office Supervising Archt.

Tenn., Chattanooga—Armory—Tennessee National Guard, Col. J. P. Fyffe, will erect armory for cavalry squadron; probably concrete; 100x160 ft.; tanbark floors; Wm. Crutchfield, Archt., Chattanooga; plans not ready.

Hospitals Sanitariums, Etc.

Fla., St. Petersburg—City, A. R. Welsh, Chmn., Hospital Board, rejected bids to erect hospital, 6th St. and 6th Ave., South; hollow tile and stucco; wood floors; concrete foundation; composition shingle roof; Henry Taylor, Archt., St. Petersburg; new bids on revised plans opened July 16. (Contract lately noted let to Carmen Co., Tampa, at \$76,956.)

Ky., Louisville—Evangelical Hospital Assn., Jacob Zinsmeister, Pres., plans to erect hospital.

La., Shreveport—Drs. L. Abramson and A. A. Herold will erect 3-story fireproof sanitarium, Hamilton Terrace; reinforced concrete faced with brick; cast stone trim; 127.6x76 ft.; glass enclosed porches, each 14x34 ft.; 48 rooms, offices, etc.; Henry E. Schwarz, Archt., 805 Ardis Bldg., Shreveport; bids opened July 2.

La., Shreveport—The Pines Hospital, Mrs. Meyer Benson, Pres., plans to erect building and also improve Colored Pines.

Miss., Jackson—Jackson Infirmary, Dr. N. C. Womack and others, will erect \$65,000 hospital; Claude H. Lindsley, Archt., Jackson.

Mo., St. Louis—St. Louis Maternity Hospital, 4518 Washington Bldg., Mrs. Benoist Cartom, Pres. of Board, will erect \$560,000 eight-story hospital, King's Highway, north of St. Louis Children's Hospital, to be affiliated with Washington Univ. School of Medicine; La Beaume & Klein, Archts., 706 Locust St., St. Louis. (Previously noted.)

N. C., Greenville—Pitt Community Hospital will erect 3-story hospital; 40x94 ft.; concrete, wood and composition floors; concrete foundation; slate roof; hollow fireproof tile; metal doors; vaults; ventilators; wire glass; direct radiation steam heat; city lights; electric passenger elevator and electric dumb waiter; Wilson & Berryman, Archts., Columbia, S. C., and Wilson and Gastonia, N. C.; will let contract July 14. (Lately noted.)

S. C., Spartanburg—County General Hospital will enlarge Moore house near hospital for nurses' home. Address Board of Trustees.

Tenn., Knoxville—City Comsn. plans to erect \$100,000 negro hospital.

Tenn., Memphis—St. Mary's Hospital, Summer Ave., 1½ miles east of Highland Ave., Mother Thomas in charge, will erect \$300,000 hospital for incurables; 3 stories and basement; 210x50 ft.; concrete and hardwood floors; reinforced concrete foundation; composition roof; hollow fireproof and interior tile; metal doors; ventilators; steel sash

and trim; wire glass; 2-story, 60x50-ft., power house and laundry; high and low pressure boilers for steam heat; 1 electric passenger elevator and 2 electric dumb waiters; accommodate 100; Henry J. Kramer, Archt., Memphis. (Lately noted.)

Va., Harrisonburg—Rockingham Memorial Hospital will erect addition; cost, including equipment, \$15,000.

Hotels and Apartments

Ark., Little Rock—Essie E. Baldwin, will erect 2-story brick apartment, 1419 W. 7th St.; cost \$12,400.

Fla., Bradenton—C. A. Birney will erect hotel building at West Manatee St. and Prospect Ave., fireproof, Spanish mission type architecture, with towers, containing 150 bedrooms; plans also include dredging of permanent yacht basin along Wares creek; total cost \$350,000.

Fla., Daytona—Mrs. N. K. Harris, manager The Breakers, plans to erect 90-room hotel; 3 stories; stucco; remodel present structure for annex.

Fla., Miami—Hotel Nautilus will erect servants' quarters and garage; cost \$125,000; 3 stories; 166x106 ft.; tile and concrete; garage room for 70 cars, repair shop, taxi garage and private laundry on first floor; 130 private rooms for help on second and third floors.

Fla., Miami—Mrs. S. E. Katsch will erect apartment building; 2 stories; 4 suites; cost \$10,000.

Fla., Miami—J. B. Cozatt plans to erect 600-room hotel on 4th St., Fort Dallas Park; fireproof.

Fla., Miami Beach—E. L. Cannon, Cleveland, O., will erect apartment house on Washington Ave.

Fla., St. Petersburg—Huntington Hotel, Paul Barnes, Mgr., will provide 12 bathrooms, refinish interior, etc.

Ga., Savannah—Henrik Wallin, 23 Abercorn St., is preparing plans for \$1,250,000 hotel on Wilmington Island; 300x50 ft.; 14 stories; 500 rooms; yacht club, golf club, and golf course in connection to cost \$300,000; Spanish renaissance style; G. L. Miller & Co., Atlanta, are reported assisting in financing proposition.

Ky., Louisville—F. E. Reeser Building Co. will erect \$125,000 apartment house at 1338 S. 3rd St.; 96 rooms.

La., Rayville—H. S. Simms will erect hotel; 2 stories; brick; bids opened July 16; J. W. Smith, Archt., Monroe.

La., New Orleans—Mrs. Ida McNulty, 1219 Baronne St., will erect \$15,000 apartment house at 7th St., between Carondelet and Baronne Sts.; 2 stories; frame and stucco; day labor.

La., New Orleans—M. J. Sangasson, 824 Maison Blanche Annex, will erect apartment house at 2617 S. Carrollton Ave.; cost \$15,000; 2 stories; frame and stucco; day labor.

Miss., Biloxi—R. H. Holmes, J. W. Apperson and E. C. Ellison incorporated with \$150,000 capital and will erect hotel on W. Beach Blvd.; 4 stories; fireproof.

Mo., Kansas City—Quality Builders, Inc., will erect three 30-apartment kitchenette buildings on Troost Ave., between 27th and 28th Sts.

Mo., Kansas City—Jewell Realty Co. will erect 6-story apartment house at 14th and Central Sts.; fireproof; reinforced concrete and brick with granite base and terra cotta ornamental work; marble floors; caen stone wainscoting; 6 stores on ground floor; 60 suites; Wilkinson & Crans, Archts., Kansas City.

Mo., St. Joseph—Louis Freed will erect 4 apartment houses, 26th and Mitchell Sts.; cost \$35,000; 4 suites in each apartment; central heating plant.

Mo., Sedalia—Jno. E. Bowser will erect double flat at Marshall and McCarty Sts.

Okla., Weleetka—Legion Hotel Co. organized with W. M. Bell, Pres.; L. T. Newton, V. P.; S. N. Craig, Sec.; D. W. Johnson, Treas.; will erect \$65,000 hotel; 3 stories; brick; top floor for Masonic lodge hall.

Tenn., Memphis—Thos. Cohen will erect apartment house at 2075 Madison Ave.; cost \$28,000; 60 rooms; also erect brick garage.

Tenn., Nashville—John W. Blair, 7th and Demonbreun Sts., will erect 3-story brick apartment house; cost \$25,000.

Tex., Beaumont—H. M. Hargrove and associates will erect \$100,000 hotel; brick, stone and reinforced concrete; Sanguinet, Staats & Hedrick, Archts., Fort Worth.

Tex., Galveston—J. St. Mary will erect 12-story resort hotel on Avenue R, between 26th and 27th Sts.; cost \$250,000; 425 rooms; Paul G. Silber, Archt., San Antonio.

Tex., Houston—Emil M. Muehlendorff is preparing plans for \$350,000 cooperative apartment house at Montrose Blvd. and Hawthorne St. to be owned by tenants; 8 stories; 16 apartments; fireproof; freight and passenger elevators; Adams period colonial architecture.

Tex., Lamesa—Westland Hotel will erect 18-room addition to hotel.

Tex., New Braunfels—F. G. Blumberg is Chmn. of company organized with \$250,000 capital to erect 100-room hotel on Landa homestead, Main Plaza.

Va., Portsmouth—Chamber of Commerce, Ralph Gould, Sec., has tentative plans by Wm. Douden, Washington, D. C., and Chas. M. Robinson, Richmond, through Chas. M. Major, Portsmouth, for \$600,000 hotel; fireproof; 9 or 10 stories; 100x100 ft.; 200 rooms with private bath; Hockenbery Corp., Harrisburg, Pa., will make survey of proposed hotel before July 15. (Lately noted.)

Va., Radford—Saul Simon and Kuhn Barnett have plans by Heth Wharton for erection of an apartment building.

Va., Richmond—J. H. Mauck will erect five 2-story brick flats on Cary St., near Sycamore St.; cost \$155,000; 162.8 ft. frontage.

Miscellaneous.

Ala., Birmingham—Clubhouse—Kiwanis Club, Erskine Ramsay, Pres., will erect Boys' Club; cost \$60,000.

Fla., Daytona Beach—Casino—Daytona Beach Corp. will construct \$40,000 swimming pool and casino on Ocean Ave.; 500 dressing rooms, cafeteria, novelty stores, dance hall, moving picture theatre, bowling alley, pool tables, etc.; Dutch colonial style; hollow tile and stucco.

Mo., Kansas City—E. Ross, Chmn. of the Young Men's Christian Assn., and others are interested in erection of negro orphans home; 2 stories and basement; 250x200 ft.; W. C. Root, of Root & Siemens, Archt., Kansas City.

Mo., Springfield—Home—St. Agnes Catholic Church, Rev. Father L. Curtis Tiernan, Pastor, will erect building for living quarters, community room and chapel.

N. C., Danbury—Summer Resort—D. D. Smith, and Jos. Diamond, Bronx, N. Y., purchased 1752 acre-site near Danbury and plan to develop for summer resort.

Tex., Brownwood—Clubhouse—Brownwood Country Club, Ed Gilliam, Pres., plans to erect \$30,000 building.

Tex., Dallas—Fine Arts and Auditorium—W. C. Everett is Chmn. of Committee promoting erection of \$500,000 Fine Arts and Auditorium Building; 200x125 ft.; 6 stories and basement; auditorium to take up central part of 6 floors with 32,000 ft. floor space for fine arts, theatre and banquet hall; sound proof; brick; R. H. Hunt & Co., Archts., Dallas.

Tex., Greenville—Clubhouse—Greenville Club Lake Assn. plans to erect clubhouse.

Schools.

Ala., Goshen—School Trustees will erect building; 6 classrooms, domestic science room, manual training room, laboratory, library, office and auditorium.

Ala., Leeds—School Board will erect high schools; 2 stories; brick; \$40,000 bonds voted. (Lately noted.)

Ala., Sheffield—Board of Education will erect auditorium, 60x90 ft. with stage 20x30 ft. for Sheffield High School; cost \$25,000.

Ala., Valley Head—Board of Education will erect \$25,000 building.

Ala., Walnut Grove—School Board will erect \$15,000 building to replace burned structure.

Ark., Pine Bluff—Arkansas Boys' Industrial School, W. B. Sorrells, Chmn. Bd. of Trustees, will erect \$13,000 trades building; Mitchell Selligman, Archt., Pine Bluff; also erect hospital of 15 to 20 beds, laundry, shoe shop and barber shop; cost \$10,000; Seig & McDaniel, Archts., Memphis, Tenn.; postponed awarding contract on 30,000-gal. tank with pressure pump and water system to cost \$12,000.

Fla., Bradentown—Board of Trustees of Parish School Dist., D. W. Danaby, contemplates erecting \$20,000 school to replace present building; will probably vote on bonds.

Fla., Hialeah—City will erect school; one unit to contain six rooms; cost approximately \$25,000; future plans for 20-room building with auditorium; W. C. DeGarmo, Archt., Miami.

Fla., Longwood—Longwood School Dist. Trustees plan to erect building; brick; election July 10 on \$30,000 bonds.

Fla., Miami Beach—City will erect 3-room annex to school; cost \$15,000; H. George Fink, Archt., Miami.

Ga., Barwick—School Board plans to erect high school; election July 7 on \$20,000 bonds.

Ga., Ellenton—Ellenton School Dist. will vote July 30 on \$10,000 bonds to erect building. Address Dist. School Trustees.

Ky., Paducah—School Board, H. A. Goodwin, Sec., will receive bids until July 23 to erect 2-story brick building; G. Tandy Smith, Archt., Paducah.

La., Raceland—Raceland School Dist. Trustees will erect annex to high school and erect teacherage; \$45,000 bonds available.

La., Shreveport—City will vote in September on \$1,000,000 bonds to erect high school; 45 rooms, auditoriums, gymnasiums, lecture rooms, teachers' rooms, manual training, domestic science departments, cafeteria, etc.; Edw. F. Nield, Archt., Shreveport.

Md., Salisbury—Building Commission, State Board of Education, Lexington Bldg., Baltimore, will let contract Aug. 21 at Salisbury to erect Eastern Shore State Normal School; brick; stone trim; accommodate 230; \$115,000 available for site and preliminary work; Smith, May & Beecher, Archts., Calvert Bldg., Baltimore. (Lately noted.)

Miss., Cotton Plant—Tippah County School Board, Ripley, will consolidate Cotton Plant and Concord schools and erect building.

Miss., Falkner—Tippah County School Board, Ripley, will consolidate Falkner and Hopper schools and erect building at Falkner.

Miss., Noyapater—Board of Aldermen, W. M. Lawrence, Clk., is receiving bids to erect school; cost \$26,000; 2 stories and part basement; 66x110 ft.; brick; wood floors; composition sheet and shingle roof; 10 rooms and auditorium; Redding & Livingston, Archts.-Engrs., Louisville, Miss. (Lately noted.)

Miss., Union—Union Special School Dist. Trustees, G. W. Goodman, Sec., will receive bids until July 15 to erect building at Geyer Springs on Mabelvale Pike.

Mo., Braggadocio—School Board, Frank L. Long, Sec., will erect 2-story brick building; bids opened July 10; Uzzell S. Branson, Archt., Blytheville, Ark.

Mo., Cameron—City voted \$12,000 to improve Southside School. Address Board of Education.

Mo., Chillicothe—Board of Education will erect \$300,000 junior-senior high school; R. Warren Roberts, Archt., Chillicothe.

Mo., Hannibal—City voted \$600,000 bonds to erect 4 buildings and improve other structures. Address Board of Education.

Mo., Joplin—City will vote July 20 on \$75,000 bonds to repair buildings. Address Board of Education. (Lately noted.)

Mo., Kansas City—Rockhurst College, Troost Ave., will erect 2-story addition to building; cost \$17,000; 75x30 ft.; stone.

Mo., Liberty—Board of Education, E. L. Black, Sec., will receive bids until July 23 to erect high school; plans and specifications at office Chas. A. Smith, Archt., Finance Bldg., Kansas City. (Lately noted.)

Mo., Marble Hill—Mayfield College, Dr. Milford Riggs, Chmn., Bldg. Comm., Ironton, Mo., will erect additions and alter building; wood and concrete floors; shingle and composition roof; vacuum steam heat; bath rooms, lavatories, septic tank, hot and cold water supply; bids opened July 12; L. B. Pendleton, Archt., DeMenil Bldg., St. Louis. (Lately noted.)

Mo., Monroe City—Monroe City School Dist. Trustees, E. M. Jayne and others, will erect \$63,000 building; 1 story; brick; steam heat; Bonsack & Pearce, Archts., St. Louis. (Lately noted.)

Mo., Oak Ridge—School Board will erect building; brick; \$18,000 bonds voted.

Mo., St. Louis—Washington University, Dr. Robt. S. Brookings, Pres., is interested in erection of fraternity and sorority houses on campus; 7 or 8 houses in a group costing \$40,000 each; brick; granite trim.

Mo., St. Louis—Concordia Seminary is reported to erect group of buildings on Pennsylvania Ave., west of Forest Park to cost \$3,000,000.

Mo., St. Louis—Franciscan Fathers will erect \$250,000 school near St. Anthony's Catholic Church; 2 stories; fireproof; brick and stone; basement for gymnasium, shower baths and swimming pool; auditorium on first floor.

Mo., Turney—Potter School Dist. Trustees will erect building; stucco.

N. C., Asheville—Buncombe County Board of Education, Frank L. Wells, Supt., will erect 4-room frame school for colored pupils in Shiloh School Dist.; bids opened July 10; T. E. Davis, Archt., Asheville.

N. C., China Grove—China Grove School Dist. Trustees will erect building; \$50,000 bonds voted.

N. C., Currituck—Currituck County Board

of Education, W. D. Cox, Supt., Moyock, will erect 1-story 6-room and auditorium frame school at Shawboro; 1-story 5-room frame teacherage at Knotts Island; remodel and erect addition to Currituck Court House School, remodel and erect addition to Poplar Branch School; 1-story garage and shop building at Moyock and Poplar Branch; bids opened July 6; Leslie N. Boney, Archt., Wilmington.

N. C., Fairview—Fairview Township will vote Aug. 6 on \$50,000 school bonds. Address Buncombe County Board of Education, Asheville.

N. C., Lexington—High School Board will receive bids July 18 for gymnasium and auditorium; latter to seat 1200; Harry C. Barton, Archt., Greensboro. (Lately noted.)

N. C., Mount Airy—School Board will erect addition to high school; 8 classrooms and auditorium; Jas. J. Baldwin, Archt., Anderson S. C.; bids about July 25; plans and specifications on file at Builders Exchange, Charlotte and Greensboro, N. C.

N. C., Raleigh—Hobart B. Upjohn, Grand Central Terminal, New York, will receive bids until July 23 to erect \$200,000 dormitory at North Carolina State College of Agriculture and Engineering; bids on general contract and heating, plumbing and electrical work; 3 stories; 242x45 ft.; slate roof; wood floors over concrete; brick foundation. (Lately noted.)

N. C., Unionville—School Board plans to remodel high school.

Okla., Bristow—Board of Education will erect \$25,000 extension to East Side ward school; C. Lee Curran, Archt.

Okla., Leedy—Board of Education, Floyd M. Parks, Clk., will build addition to school; bids opened July 7; R. W. Shaw, Archt., Enid.

Okla., Norman—University of Oklahoma, H. H. Herbert, Pres., will erect students building, containing cafeteria, dining room, offices, etc., cost \$350,000; Sorey and Valverg, Archts., Oklahoma City; will also erect engineering building; cost \$100,000; fireproof; brick; Bedford limestone trim; Layton Smith & Forsyth, Archts., Oklahoma City.

Okla., Shawnee—City will vote July 10 on \$80,000 bonds to erect school. Address W. M. Edwards.

Okla., Tulsa—Tulsa Business College plans to erect 3-story building, 406 S. Denver St.

S. C., Columbia—University of South Carolina will erect woman's dormitory; bids opened July 17; plans and specifications at office Rudolph E. Lee, Archt., Charlotte, N. C.

S. C., Gaffney—Limestone College, Dr. R. C. Granberry, Pres., will erect hall of science, fine arts building, library and gymnasium; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C. (Lately noted.)

S. C., Walhalla—School Trustees will erect building; 2 stories; 12 classrooms; Barrett roof; Webster system of heat; Jas. J. Baldwin, Archt., Anderson; day labor under supervision of H. C. Bush, Walhalla.

Tenn., Bryant Station—County Board of Education, Columbia, will erect school.

Tenn., Cleveland—City voted \$75,000 bonds to erect buildings for Southside and College Hill schools. Address Board of Education. (Lately noted.)

Tenn., Columbia—Columbia Military Academy, Dr. C. E. Crosland, Pres., will expend \$30,000 for improvements; install plumbing, furnish rooms, painting, etc.

Tenn., Halls—Board of Education will erect school; \$35,000 bonds voted.

Tenn., McKenzie—City will construct additional unit for McTier school; cost \$40,000,

Tenn., Nashville—Ward-Belmont College will erect five 2-story, 6-room club houses; cost \$35,000.

Tenn., Nashville—Vanderbilt University, Dr. J. H. Kirkland, Chancellor, will receive bids about Aug. 15 for School of Medicine and Hospital; 3 units; cost about \$2,000,000; main building, 458x337; 4 stories and basement; 4-story nurses' building with sleeping porch; hospital building for 163 beds and various departments; date of beginning construction decided about Sept. 30. (Lately noted.)

Tenn., Tiptonville—Board of Education, A. E. Markham, Pres., will erect \$60,000 school; 10 classrooms, auditorium 50x72 ft., manual training and domestic science departments, library, etc.; Mahan & Broadwell, Archts., Memphis.

Tex., Austin—Board of Regents, University of Texas, Dr. Robert E. Vinson, Pres., will receive bids in duplicate until Aug. 1 to erect biology building; separate bids on general contract, heating, plumbing and elevators; cost \$400,000; 192x87 ft.; 4 stories and basement; fireproof; hollow fireproof tile; cement, tile and linoleum floors; tile roof; reinforced concrete foundation; metal doors; ornamental terra cotta trim; passenger elevator; central heating plant; plans and specifications at office Herbert M. Green Co., Archt., 620 N. Texas Bldg., Dallas. (Lately noted.)

Tex., Brady—School Trustees, A. J. Ricks, Pres., plan to repair heating plant and equip schools; election July 7 on \$16,000 bonds.

Tex., Dallas—Board of Education will erect Vickery Place Ward School at Henderson and Lawrence Aves.; cost \$125,000; 2 stories; 207x87 ft.; fireproof; brick; stone trim; 22 classrooms, auditorium and lunchroom; C. D. Hill & Co., Archts., Dallas.

Tex., Dallas—Holy Trinity Catholic Parish, F. A. Donnell, Chmn., Bldg. Comm., will erect parish school; bids opened July 14; cost \$40,000; 2 stories; structural concrete frame, face brick, hollow tile backing; composition roof; concrete and wood floors; stone trim; auditorium to accommodate 500; 8 class rooms on each floor; David S. Castle Co., Archt., Merchants Bank & Trust Bldg., Dallas. (Previously noted.)

Tex., Danbury—Danbury School Dist. Trustees will erect building; brick; \$25,000 bonds voted.

Tex., Daingerfield—Daingerfield Independent School Dist. voted \$15,000 improvement bonds. Address School Dist. Trustees.

Tex., Denton—Board of Regents, North Texas State Teachers' College, will receive bids Aug. 25 at Galveston to erect \$300,000 administration and auditorium building; 23 classrooms, administrative offices, auditorium to seat 2800; brick and Bedford limestone; Page Bros., Archts., Dallas; will also erect \$10,000 temporary building.

Tex., Galveston—University of Texas will erect medical college building; Herbert M. Green Co., Archt., 620 N. Texas Bldg., Dallas.

Tex., Hearne—Hearne Independent School Dist. Trustees will erect \$18,000 negro school.

Tex., Lingleville—School Board, G. F. Wilcox, Sec., will erect building; \$14,000 bonds voted. (Lately noted.)

Tex., Lubbock—Lubbock Independent School Dist. Trustees, C. E. Maedgen, Sec.; will remodel high school; cost \$10,000; L. E. Harrison, Archt., Plainview.

Tex., Math's—School Trustees will erect 4-room addition to building; bids opened July 2; brick and tile; W. C. Stephenson, Archt., Beeville.

Tex., Rule—Board of Education will erect

\$50,000 high school; 3 stories; ordinary construction; David S. Castle & Co., Archts., Abilene.

Tex., Spearman—School Board, C. W. King, Sec., will erect building; plans to issue \$75,000 bonds.

Va., Amherst—School Board, P. R. Evans, Chmn. Comm., will erect 4-room annex to building.

W. Va., Institute—West Virginia College Institute, Dr. Jno. W. Davis, Pres., will erect administration building; cost \$350,000; 268x76 ft.; 3 stories; brick; limestone trim; composition roof; hardwood and terrazzo floors; auditorium, 58x81 ft., to seat 830; library, 58x104 ft., 25 classrooms, 6 laboratories, 2 lecture rooms, 8 music rooms, etc.; Warne, Tucker & Patterson, Archts., Masonic Temple, Charleston. (Lately noted.)

W. Va., Raymond City—Poca Dist. School Board, Poca, will erect high school; \$50,000 bonds voted.

W. Va., Martinsburg—Berkley County Board of Education will receive bids until July 21 to erect 2-room brick school in Opequon Dist.

W. Va., Van—Crook Dist. School Trustees, E. S. Dickens, Sec., will erect high school.

Stores.

Fla., Clermont—C. F. Keeling, Mount Dora, will erect business building at Montrose and 7th Sts.; 2 stories; brick.

Fla., St. Petersburg—J. B. Alexander, Forest City, (Baynard & Thorn, Local Agents) will erect 1-story business block.

Ga., Atlanta—F. G. Willis will erect building at 444 Courtland St.

Ky., Combs—Number Four Coal Co. will erect \$20,000 store building.

Ky., Blackey—J. T. Whitaker will erect \$10,000 store building.

Ky., Whitesburg—George Hogg will erect \$15,000 store and office building on Main St.

La., Monroe—Sig Masur & Bro. purchased old Princess Building on DeSard St. and will expend \$150,000 to remodel and probably erect 2-story addition for Palace Department Store.

La., Monroe—J. C. Penney Co., Inc., will erect 2-story brick building on DeSard St.; Drago & King, Archts., Monroe.

La., Shreveport—N. G. Stinson will erect \$26,000 building at 2031-7 Texas Ave.; 1 story; brick.

Md., Baltimore—Alexander A. Grott, 11 E. Lexington St., will erect 2 stores on Paca Street.

Md., Baltimore—J. T. Langville, 134 W. Fayette St., purchased buildings at 1222-26 Light St. and will remodel for stores and build garages in rear.

Mo., Dunlap—Farmers Produce Exchange will erect building; bids opened July 9.

Mo., Kansas City—Chas. H. Luce will erect shop building at Summit and 37th St.; English design.

N. C., Gastonia—Siler Grocery Co., J. G. Siler, Pres., Lavonia, Ga., will erect building on W. Main Ave.; 34x150 ft.; brick.

N. C., Winston-Salem—Snyder Tire Co. will erect building at Liberty and Second Sts.

Okla., Tulsa—C. P. Alexander will erect 4-story business block on Cheyenne St. between 5th and 6th Sts.; 75x140 ft.

Tenn., Knoxville—Swepson Estate (W. E. Mynderse, Agt.) will erect \$22,000 building at State St. and Vine Ave.; 2 stories and basement; 51x103 ft.; brick and stucco.

Tenn., Knoxville—Geo. W. Baxter will remodel brick store, 120 S. Gay St.; cost \$11,000.

Tenn., Knoxville—Economy Drug Co. will remodel brick store, 523 S. Gay St.; cost \$10,000.

Tenn., Paris—M. Livingston & Co. will erect 1-story brick building on Rison St.

Tex., Dallas—E. S. Burnes will erect \$15,000 business building, 1401-7 Greenville St.;

Tex., Dallas—B. A. Moon will erect 1-story brick business building at 4342-46 McKinney St.; cost \$10,000.

Tex., Dallas—T. C. Daniel, 3100 Knox St., will erect brick store building; cost \$12,000.

Tex., Dallas—M. and L. Epstein, 2101 S. Ervay St., will erect 1-story brick store; cost \$21,000.

Tex., San Antonio—Paul Mueller will remodel building at 102 E. Commerce St.; brick work, show windows and interior remodeling; Seutter & Simons, Archts., San Antonio.

Tex., Sherman—Mr. Kelly will remodel building and extend 40 ft.; cost \$12,000; 2 stories; brick; 30x100 ft.; Jno. Tulloch, Archt., 213 M. & P. Bank Bldg., Sherman.

Va., Richmond—J. Scott Parrish and others will erect store and apartment building at Second and Grace Sts.; cost \$60,000; 3 stories; florist shop on first floor; apartments above.

W. Va., Bluefield—S. A. Mann and C. A. Bradshaw will erect store and office building on Bland St.; 2 stories; Alex B. Mahood, Archt., Bluefield.

W. Va., Keystone—Pais & Vecellio plan to erect building.

W. Va., Wheeling—Chas. F. Brand, 924 Market St., will remodel 2-story building at 64 16th St. for supply house and shop with apartments above; also erect stucco building in rear in connection with shop.

Theatres.

Fla., Pensacola—J. M. Muldon will remodel Muldon building for theatre; seating capacity 1500; cost \$75,000.

Mo., Springfield—Jefferson Theatre, S. E. Wilhoit, Mgr., will remodel building.

Okla., Tulsa—W. M. Smith will expend \$60,000 in remodeling Edwards Bldg. for Orpheum theatre; interior to be Spanish design. improve seating capacity, install new lighting fixtures, pipe organ, etc.

Warehouses.

Ky., Auburn—Dark Tobacco Growers' Co-operative Assn., Claude Cook, Chmn. Bldg. Comm., will erect storage warehouse; Manley & Young, Archts.; Knoxville, Tenn., will supervise construction. (Lately noted.)

Ky., Smith's Grove—Dark Tobacco Growers' Co-operative Assn., Claude Cook, Chmn., Bldg. Comm., will erect storage warehouse; Manley & Young, Archts., Knoxville, Tenn., will supervise construction. (Lately noted.)

La., New Orleans—Todd Engineering Drydock & Repair Co., M. E. Hart, Mgr., will erect warehouse and shop buildings at S. Peters St. and Howard Ave.; cost \$60,000; 129 ft. square on 6 ft. concrete wall and pile foundation; composition roof; steel sash and corrugated iron siding.

Mo., Branson—Ozark Leaf Tobacco Co., organized with \$15,000 capital and will erect warehouse.

N. C., Elizabeth City—Elizabeth City Cotton Mills will erect addition to warehouse; 64x78 ft.; 900 bales capacity; cost \$12,000.

Tenn., Clarksville—Dark Tobacco Growers' Co-operative Assn., Claude Cook, Chmn. Bldg. Comm., will erect storage warehouse; Manley & Young, Archts., Knoxville, will supervise construction. (Lately noted.)

Tenn., Knoxville—Planters' Warehouse, Inc. plans to erect building.

Tex., San Antonio—Travis St.-Marys Co., L. J. Hart, Pres., will erect \$231,000 fireproof office building, Travis and St. Mary's Sts.; 10 stories and basement; reinforced concrete frame; face brick and hollow tile; 192x62 ft., less court; wood floors in offices, tile corridors; reinforced concrete pier foundation; 20-yr. Barrett roof; Phelps & Dewees, Archts.; W. E. Simpson Co., Engr.; McKenzie Construction Co., Contr., P. O. Box 58; all San Antonio; work started. (Lately noted.)

Tex., San Antonio—Guaranty State Bank will remodel old Bexar Hotel Building, 105 Jefferson St. for bank; cost \$70,000; Phelps & Dewees, Archts.; Coleman & Jenkins, contr. on cost plus basis; both San Antonio. (Previously noted.)

Va., Lynchburg—First National Bank will remodel and redecorate building; C. W. Womack & Co., Contrs., Lynchburg.

Churches.

Fla., Lakeland—Southside Baptist Church will erect buff brick building, Pennsylvania and McDonald Sts.; 96x126 ft.; auditorium to seat 1200; J. E. Greene, Archt., Birmingham, Ala.; Lakeland Construction Co., Contr., Lakeland.

Miss., Gulfport—St. John's Catholic Church, Rev. H. A. Spengler, Pastor, will erect \$51,302 building; 82x100 ft.; wood floors; concrete foundation; tile roof; hollow fireproof tile; ornamental terra cotta; Shaw & Woleben, Archts., Gulfport; Collins Bros., Contrs.; Biloxi Plumbing & Heating Co., steam heating; both Biloxi; Goler Electric Co., Gulfport, electrical work. (Previously noted.)

S. C., Fountain Inn—Methodist Episcopal Church, South, J. T. Brooks, Sec., Bldg. Comm., will erect 2-story brick veneer building; 40 x 80 ft.; F. H. & J. G. Cunningham, Archts.; Thos. C. Perkins, Contr., both Greenville. (Lately noted.)

Tex., San Antonio—First Presbyterian Church will erect young people's building, 402 Avenue D; reinforced concrete; fireproof; 3 stores and roof garden with stage; 66x170 ft.; concrete and hardwood floors; iron and beam construction; concrete foundation; promenade tile roof over concrete; hollow fireproof and interior tile; metal doors; refuse chutes; stage lights; ventilators; rolling partitions; steel sash and trim; wire and cathedral glass; cut stone; grilles for elevator enclosure; will also erect addition to main building; Paul G. Silber & Co., Archts., 331 Bedell Bldg.; McKenzie Construction Co., contr. at \$154,678; both San Antonio; construction begun. (Lately noted.)

City and County.

Ala., Birmingham—Auditorium, City, D. E. McLendon, Pres., City Commrs., will erect municipal auditorium; North Italian architecture; rough texture brick; structural steel; seating capacity 6024; plans by Birmingham Assn. of Archts., Hugh Martin, D. O. Whilldin, both Title Guarantee Bldg., Rem Price, Jefferson County Bank Bldg., E. H. Knight, 1607 Empire Bldg., J. A. Miller, Harry B. Wheelock, Wm. Warren, and others; Day & Sachs, Contr., at \$409,100 for construction complete, except mechanical features; all Birmingham. (Lately noted.)

Ga., Atlanta—Market—Municipal Market Co., John A. Manget, Sec., will erect \$150,000 market; 1 story and partial basement; \$35,000 sq. ft. of floor space; concrete and hardwood floors; reinforced concrete foundation; 3-ply composition roof; low pressure steam heat; lighting installation, power lines for tenants as required; hand-power lifts, 1500-lb. capacity; plumbing to consist of drains, water lines and 4 toilet rooms; hol-

BUILDING CONTRACTS AWARDED

Association and Fraternal.

Fla., Fort Pierce—Fort Pierce Lodge No. 87, A. F. & A. M., will erect \$50,000 temple, Avenue A; Spanish type; 3 stories; reinforced concrete and structural steel; hollow tile and stucco; 4 stores on first floor; C. E. Cahow, Contr., Fort Pierce. (Previously noted.)

N. C., Durham—Masonic Building Corp. will erect \$100,000 Temple; Milburn. Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham; Goode Construction Co., Contr., Charlotte. (Previously noted.)

Tenn., Nashville—Scottish Rite Masons, D. R. Burns, Chmn., Bldg. Comm., will erect \$900,000 Temple; 115x145 ft.; steel frame; Indiana limestone; Asmus & Clark, Archts., Stahlman Bldg., Nashville; Hugger Bros., Contrs., Montgomery, Ala.

Bank and Office.

Mo., Kansas City—Kansas City Finance Co. will erect 12-story office building; 34x140 ft.; concrete and hardwood floors; concrete and steel foundation; tar and gravel roof; hollow fireproof tile; metal doors; vaults; mail chutes; ventilators; ornamental terra cotta; steel sash and trim; Keene & Simpson, Archts.; Bickel Contracting Co., Contr.; Arthur McKinley Plumbing & Heating Co., plumbing and heating; all Kansas City; Kaestner & Wecht, Chicago, 2 electric passenger and 1 hydraulic freight elevator; electrical work not let.

N. C., Southern Pines—Dr. Wm. C. Mudgett will erect \$20,000 office building; 3 stories; 48x42 ft.; brick and hollow fireproof

tile; concrete, hardwood, pine and linoleum floors; brick foundation; slate and iron roof; interior tile; Aymar Embury, 2nd, Archt., 150 E. 61st St., New York; T. S. Burgess, Contr., Southern Pines; construction begun. (Lately noted.)

Tenn., Memphis—Memphis Cotton Exchange, Henry Thompson, Sidney Farnsworth and others, Bldg. Comm., will erect 12-story building; reinforced concrete faced with brick and terra cotta; cost, including site, \$700,000; Mahan & Broadwell, Archts.; Kaucher-Hodges & Co., Contrs.; both Memphis. (Previously noted.)

Tenn., Morristown—Russell Milling & Coal Co. will erect office building; contract let.

Tex., Galveston—Westlake Construction Co., Contr., St. Louis, let contract to Capt. John Jacobson, Galveston, for driving 646 piles, 37 ft. long, for foundation of Texas State Bank & Trust Co.'s 11-story building, to be erected at Market and 22nd Sts.; cost \$1,000,000; concrete and steel frame; first 3 stories of Bedford limestone, balance brick; 85x120 ft.; 3 electric elevators; to have own electric light and power, refrigerating, heating and ventilating systems; vaults, safety deposit boxes, etc.; Alfred C. Blossom, Archt., 680 Fifth Ave., New York. (Contracts lately noted for heating, lighting and plumbing.)

Tex., Houston—Southern Loan & Investment Co. will erect 10-story office building, Fannin St. and Walker Ave., for Houston Electric Co.; 151.6x108 ft.; reinforced concrete, brick and steel; cost \$825,000, exclusive of inside partitions and finish; American Construction Co., Contr., Houston. (Lately noted.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

low fireproof and interior tile; metal ceilings, metal doors; ornamental terra cotta; steel sash and trim; wire glass. A. Ten Eyck Brown, Archt., 717 Forsyth Bldg.; Spiker & Lose, Engrs., 517 Forsyth Bldg.; E. A. Stuhman, Contr.; all Atlanta. (Lately noted.)

Mo., Sedalia—Courthouse—Pettis County will erect courthouse; Hulse Construction Co., Contr., Hutchinson, Kan.; \$350,000 bonds previously noted voted.

Tex., Colorado—Courthouse—Mitchell County, J. C. Hall, County Judge, will erect \$89,500 courthouse; 117x60 ft.; 3 stories; concrete and hardwood floors; concrete foundation; composition roof over concrete slab; hollow fireproof and interior tile; metal doors; vaults; ventilators; David S. Castle Co., Archts., 1005 Mercantile Bank Bldg., Dallas, and Abilene; J. T. Reddick, Contr., Fort Smith, Ark.; Kinnison Bros., Dallas, steam heat, \$5767; Strawbridge-Moody Elec. Co., Abilene, conduit system electrical work, \$2495; Colorado Plumbing & Heating Co., Colorado, plumbing, \$4117. (Lately noted.)

Tex., Weimer—City Hall—City will erect reinforced concrete and brick city hall; cost about \$20,000; L. Harrington & Co., Archts.; Gunderman & Allen, Contrs.; both San Antonio. (Lately noted.)

Dwellings.

Fla., Jacksonville—Rev. Wm. Barry will erect 2-story brick residence, Forbes St. near Acosta St.; cost \$16,000; Geo. W. Hessler, Contr., Jacksonville.

Fla., Miami—F. A. Fisher has contract to erect two \$10,000 residences in Grove Park for Messrs. Tatum; Italian design; 2 stories; tile and stucco; Spanish tile roofs; screened and glassed porches; Henry La Pointe, Archt., Miami; construction begun.

Fla., Miami Beach—Mrs. A. Reardon will erect 2-story Spanish type residence on ocean front at 42nd St.; interlocking tile; sleeping porches; Louis D. Brumm, Archt., Miami.

Fla., Miami Beach—Miami Atlantic Holding Co. will erect 6 Spanish type dwellings in Nautilus subdivision; cement block and stucco; 1 and 2 stories; total cost \$50,000; W. C. DeGarmo and P. E. Paist, Archts.; Hunt Bros., Contrs.; all Miami.

La., New Orleans—Savings & Homestead Assn. will erect \$11,870 dwelling, Panola and Carrollton Sts.; A. F. Peterson, Contr., New Orleans.

La., New Orleans—Dixie Homestead Assn. will erect \$16,000 dwelling, Broadway and Pine Sts.; Albert T. Peterson, Contr., New Orleans.

La., New Orleans—Jackson Homestead Assn. will erect 2 dwellings, Claiborne and Cambronne Sts.; total cost \$13,000; Fabrian A. Borie, Contr., New Orleans.

La., New Orleans—Mrs. Ethel Livette will erect \$11,000 residence, Audubon Blvd. and Claiborne Sts.; Charbonnet Bldg. Co., Inc., Contr., New Orleans.

La., New Orleans—Savings Homestead Assn. will erect \$10,160 bungalow, Napoleon Ave. and Dorgenols St.; Chas. Pfister, Contr., New Orleans.

Md., Baltimore—Allan W. Mason, Vice-Pres., Baltimore Trust Co., 25 E. Baltimore St., will erect \$20,000 residence and garage, Gittings Ave., east of Charles St.; 2 stories; frame; 56.6x58 ft.; Smith & May, Archts., Calvert Bldg.; J. Henry Smith, Contr., 300 E. 33rd St., Baltimore. (Lately noted.)

Md., Baltimore—Wesley Fennell, 1813 Ruxton Ave., will erect \$12,000 bungalow and garage, Kathland Ave., east of Forest Park; 1½ stories; frame; 30x40 ft. and 20x20 ft.; slate roof; steam heat; Stanislaus Russell, Archt., 11 E. Lexington St.; Henry T. Sor-

rell & Son, Contrs., 4112 Kathland Ave., Baltimore. (Lately noted.)

Tenn., Memphis—Max Weis will erect \$22,000 brick veneer duplex building, 1406 Peabody Ave.; both suites to have 6 rooms, bath and solarium; Regan & Weller, Archts.; J. E. Cole, Contr.; both Memphis.

Tex., Houston—John Hamman will erect \$90,000 residence in Montrose; frame and brick veneer; 2 stories; concrete, hardwood and tile floors; concrete foundation; tile roof; plaster board; interior tile; ventilators; steel sash and trim; Russell Brown Co., Archt.-Contr.; hot water heat, American Radiator Co. Ideal boiler, by contr.; A. T. Cooke, electrical work; J. C. Nolen, plumbing; all Houston. (Lately noted.)

Tex., San Antonio—Thos. E. Lyons will erect \$42,000 residence, King's Highway; 2 stories; 75x48 ft.; hollow tile and stucco; oak floors; concrete foundation on solid rock; tile roof; interior tile; ventilators; C. B. Schoeppl Co., Archt.-Contr., Gunter Bldg.; Jud & Ormond, heating and plumbing; both San Antonio; construction begun. (Lately noted.)

Tex., Waco—Coleman Kendrick, Pres., Wilson Bros. Mercantile Co., Mart., will erect \$20,000 residence and garage, 28th and Maple Sts.; 2 stories; Easterwood & King, Archts.; A. L. Bradley, Contr.; both Waco; construction begun.

Va., Richmond—Davis Land Co., 2510 W. Main St., will erect 4 dwellings, 2108-14 Maplewood St.; 2 stories; 20x33x30 ft.; brick walls and foundations; wood floors; tin roofs; hot water heat; total cost \$22,000; plans by owner; Davis Bros., Contr., 2510 W. Main St., Richmond.

Va., Richmond—S. S. Ellette, 610 W. 29th St., will erect \$10,000 brick dwelling; 2 stories; 32x45x34 ft.; brick foundation; wood floors; slate roof; hot water heat; plans by owner; E. L. Bass Bros., Contrs., 708 Bainbridge St., Richmond.

Va., Richmond—J. H. Mauck, care Max E. Ruehrmund, Contr., Allison Bldg., will erect 5 brick dwellings; 29x49x25 ft.; 2 stories; concrete foundations; wood floors; tin roofs; total cost \$55,000; plans by owner.

Va., Richmond—Maury Land Co., 913 Hull St., will erect 4 frame dwellings; 2 stories; 24x30x29 ft.; brick foundations; wood floors, tin roof; pipeless furnaces; plans by owner; L. T. Chapman, Contr., 1214 Bainbridge St., Richmond.

Government and State.

W. Va., Charleston—Armory—West Virginia Land & Improvement Co. will erect \$58,000 armory, State and Goshorn Sts., to be used by National Guard; 3 stories; hall to seat 2500; wood and cement floors; Herbert Kyle, Archt.; W. A. Abbott, Contr.; both Charleston. (Lately noted.)

Hospitals, Sanitariums, etc.

Md., Perryville—U. S. Veterans' Bureau, Frank T. Hines, Director, Arlington Bldg., Washington, D. C., will erect occupational therapy building at U. S. Veterans' Hospital No. 42; work includes hollow tile and stucco walls, interior plaster, interior and exterior painting, excavating and concrete foundations, slate roof and all inside plumbing, heating and electric installations; W. P. Thurston Co., Contr., Richmond, Va. (Lately noted.)

Tenn., Paris—Dr. M. C. Wiggins will erect \$18,790 clinic, Caldwell St.; 3 stories; 38x54 ft.; brick and hollow fireproof tile; concrete and pine floors; concrete foundation; combination shingle roof; interior tile; plaster board; ventilators; steel sash and trim; wire glass; Anker F. Hansen,

Archt., 612 McCall Bldg., Memphis; Forbes Manufacturing Co., Contr., Hopkinsville, Ky.; S. J. Veltman, Paris, heating, electrical work and plumbing. (Lately noted.)

Tex., El Paso—William Beaumont General Hospital will alter building No. 5-B and construct wing addition; V. E. Ware, Contr., 1614 Missouri St.; Fred H. Dougherty, 3207 Huno St., plumbing; both El Paso. (Lately noted.)

Tex., Kerrville—American Legion Memorial Sanatorium, S. B. Cowell, Chmn., Bldg. Board, will erect 4 semi-detached and 2 other structures; reinforced concrete and brick; Phelps & Dewees, Archts., Gunter Bldg.; McKenzie Construction Co., contr. at \$86,152; both San Antonio. (Lately noted.)

W. Va., Charleston—Mountain State Hospital, Morris & Virginia Sts., Dr. M. V. Goodbey, Pres., will erect 4-story addition at rear of present building; construction to permit erection of 2 additional stories later; 50x180 ft.; steel joist and concrete floors; concrete and brick foundation; composition roof; cost \$90,000; Wysong & Jones, Archts.; Higginbotham & Jones, Contrs., Charleston National Bldg.; Morgan Plumbing Co., heating and plumbing; all Charleston; elevators already installed. (Lately noted.)

Hotels and Apartments

Fla., Miami—A. A. Godard will erect apartment house on N. E. 17th St.; cost \$16,000; 2 stories; 47x79 ft.; 8 suites; Martin L. Hampton, Archt.; D. V. Godard, Contr.; both Miami.

Fla., Miami—Jno. A. Gardner will erect 6-story hotel on First St. between First and Second Aves.; cost \$70,000; reinforced concrete; Geo. S. Pfeifer, Archt.; T. H. Ryan, Contr.; both Miami.

Ga., Savannah—Ralph F. Hicks will erect additions to and improve Collins Hotel at Abercorn and Congress Sts., to be known as John Wesley Hotel; cost \$125,000; 40x100 ft.; 6 stories; reinforced concrete; tile partitions; concrete floors and foundation; tar and gravel roof on concrete; G. Lloyd Preacher & Co., Archts., Atlanta; C. H. Van Ormer, Contr., Augusta; Peerless Plumbing Co., Savannah, plumbing and heating. (Lately noted.)

Md., Baltimore—Miss Bessie L. Brown, Washington, D. C., plans to erect apartment house on Charles St. fronting Homewood; 10 stories; 135 suites; about 70x132 ft.; reinforced concrete frame; brick and stone; slag roof; 3 elevators; vapor heat; cost \$1,000,000; Frederick A. Fletcher, Archt., 407 N. Charles St., Baltimore; Weller Construction Co., Contr., Washington.

Miss., Biloxi—Mrs. Erena Brady will erect \$250,000 hotel on W. Howard Ave.; 6 stories; Spanish architecture; tile and stucco; Carl Matthes, Archt., Biloxi; Tallavest & Regar, Contrs., Tallahassee, Fla. (Previously noted.)

Tenn., Chattanooga—Dr. E. C. Johnson will erect apartment house at Lookout and 3rd Sts.; 2 stories; 150x53 ft.; brick; 20 suites of 3 rooms; Stewart Construction Co., Contr., Chattanooga.

Tenn., Memphis—S. P. Goldfarb will erect apartment house at 270 S. Bellevue Blvd., brick veneer and stone; steam heat; 24 apartments; will also build 24 garages; total cost \$124,000; plans and construction by Sundholm Construction Co.

Tenn., Memphis—Mrs. Elsie W. Adler will erect 20-room apartment at 84 N. Watkins St.; cost \$23,000; Irvine-Adler Construction Co., Contr., Memphis.

Tex., Fort Worth—L. E. Callicotte will erect \$100,000 apartment building on Broadway; Earl T. Glasgow, Archt., 1504 F. & M. Bank Bldg.; Jno. H. Rogers, Contr., 2208 College St., both Fort Worth.

Miscellaneous.

Ark., Little Rock—Funeral Establishment—Healy & Roth will erect building at 815 Main St.; cost \$60,000; 50x140 ft.; 2 stories and basement; chapel 21x66 ft. and another 11x24 ft., mortuaries, family rooms, private rooms, etc.; garage in rear; fireproof; brick; stone trim; Sanders & Ginnochio, Archts.; Stewart-McGehee Construction Co., Contr.; Pfeiffer Plumbing Co., plumbing; Electric Construction Co., wiring; all Little Rock.

Mo., Webb City—Funeral Home—Steele Undertaking Co. will remodel building at Broadway and Liberty Sts. for funeral home; cost \$25,000; Chas. Stiens, Archt.; W. H. Porter, Contr.

N. C., Charlotte—Cafe—New York Cafe, Geo. Anagnos and others, will expend \$12,000 to \$15,000 to remodel building; Albert Pick Co., Contr., Chicago.

N. C., Henderson—Clubhouse—West End Country Club, C. B. Cheatham and others, will erect building; 36x58 ft. with 18x36 ft. wing; 1 story; frame; shingle roof; hardwood floors; Patterson-Carter, Inc., Contr., Box 141, Henderson; White Cotton Electric Co., electric wiring. (Lately noted.)

S. C., Greenville—Library—Dr. Fletcher Jordan will erect \$31,000 library at Main and Brown Sts., and lease to Greenville Public Library, Thos. F. Parker, Pres., Board of Trustees; 3 stories; 50x100 ft.; concrete foundation; tar and gravel roof; hollow fireproof tile; hardwood and concrete floors; plaster board; interior tile; wire glass; ventilators; vapor heat; Beacham & LaGrand, Archts.; Minter Homes Co., Contr., Bruce Bldg.; both Greenville. (Lately noted.)

Tenn., Memphis—Clubhouse—Ridgeway Golf and Country Club, Dr. Louis Levy, Chmn., Bldg. Comm., will erect \$50,000 clubhouse facing Poplar Pike; 2 stories; frame; 125x60 ft.; 90x20 ft. porch; Jones & Furbringer, Archts.; R. F. Creason & Co., Contrs.; both Memphis.

Railway Stations, Sheds, Etc.

La., New Orleans—Louisiana Ry. & Navigation Co., Wm. Edenborn, Pres., will erect passenger, baggage and express depot at S. Rampart and Girod Sts.; cost \$150,000; ticket office and waiting room; 1 story; 48x156 ft.; baggage and express building; 1 story; 33x86 feet.; concrete and structural steel faced with brick; composition roof; steel sash; marble trim; Toledano, Wogan & Bernard, Archts., Title Guarantee Bldg.; Jos. Fromherz, Contr., both New Orleans. (Lately noted.)

Md., Baltimore—Baltimore & Ohio R. R., H. A. Lane, Ch. Engr., Charles and Baltimore Sts., will erect 1-story fireproof addition to building on Stewart St., northeast of Beason St.; cost \$10,000; 54x36 ft.; slag roof; steam heat; will also erect two fireproof buildings at Andrea and Beason Sts.; cost \$15,000; 40x70 ft. and 46x30 ft.; one and two stories; slag roof; steam heat; S. P. Kimball, Archt.; Whiting-Turner Construction Co., Contr., 403 Stewart Bldg., Baltimore; will rebuild structure at Pratt St. and Arlington Ave.; use present brick walls of 2-story building and convert into 3 stories; 60x200 ft.; fireproof; concrete floors and columns; composition roof on concrete; steel sash and trim; steam heat; to be used for offices and engineers testing laboratory; install laboratory equipment; plans

by company; Frainie Bros. & Haigley, Contrs., 19 W. Franklin St., Baltimore.

Schools.

Ala., Jasper—School Board will remodel grammar school; cost \$10,000; L. J. Wilson, Contr., Jasper.

Ala., Scottsboro—J. F. Proctor will erect 2 brick buildings on N. Market St.; F. D. Webb, Contr.

Ark., Little Rock—School Board, Lillian D. McDermott, Sec., will erect Forest Park School; 2 stories; fireproof; brick; Sanders & Ginnochio, Archts., Urquhart Bldg.; J. H. Leveck & Sons, contrs. at \$66,135; Himstedt & Son, plumbing and heating, \$17,132; Electric Construction Co., wiring; all Little Rock. (Lately noted.)

Fla., Hopewell—Hillsborough County Board of Public Instruction, J. E. Knight, Sec., Tampa, will erect \$12,000 building; frame; M. Leo Elliott, Archt.; N. W. Green, Engr., both Tampa; D. W. Smith, Contr., Plant City. (Lately noted.)

La., Starks—Calcasieu Parish School Board, F. A. Ford, Act. Sec., Lake Charles, will erect building; I. C. Carter, Archt., Lake Charles; P. Oliver & Sons, Lake Charles, cont. at \$16,985. (Lately noted.)

Mississippi—H. P. Chastang Co., Jackson, Miss., has contract to erect combination classroom and dormitory at French Camp Memorial College; cost \$60,000; 2 stories and part basement; Redding & Livingston, Engrs.-Archts., Louisville, Miss.

Miss., McComb—Board of Education, A. H. Jones, Sec., will erect North and South schools; cost \$46,085 and \$44,980; 1 story; 140x151 ft.; brick and frame; wood floors; concrete foundations; composition roofs; hollow fireproof tile; steel sash and trim; ventilators; Claude H. Lindsley, Archt., Kress Bldg., Jackson; S. W. Leard, Contr., McCool; Fisher Heating Co., Memphis, Tenn., heating; W. V. Johnson, electric work; E. Quintana, plumbing; both McComb. (Lately noted.)

Miss., Meadville—Franklin County Board of Education will erect dormitory at Agricultural High School; cost \$10,195; W. P. Thompson, Contr., Brookhaven.

Miss., Phoenix—Yazoo County Board of Education, Thos. J. White, Supt., Yazoo City, will erect 1-story frame school at Phoenix; 9 rooms; also 1-story and basement frame school and teacherage 7 mi. from Yazoo City; N. W. Overstreet, Archt., Jackson, Miss.; Curran & Dyer, Jackson, contrs. at \$14,000 for former structure and Louis Dickens, Carthage, Miss., contr. at \$8912 for latter. (Lately noted.)

Miss., Vicksburg—City, J. J. Hayes, Mayor, will erect Magnolia Avenue (colored) School; cost \$84,632; E. G. Parish Construction Co., Contr., Jackson, Tenn.; Electrical Supply Co., wiring, \$1833; Sanitary Plumbing Co., plumbing, \$5665; Enterprise Plumbing Co., heating, \$6100; all Vicksburg. (Lately noted.)

Mo., East Prairie—East Prairie School Dist. Trustees will erect \$40,000 high school; 2 stories and basement; brick; steam heat; Gerhard Construction Co., Contr., Cape Girardeau. (Previously noted.)

Mo., Henrietta—Consolidated School Dist. No. 3 will erect building for high school; G. A. Rector, St. Joseph, contr. at \$23,750. (\$30,000 bonds previously noted.)

Mo., King City—Board of Education will erect school; Chas. Norris, St. Joseph, contr. at \$52,284; Western Heating & Plumbing Co., St. Joseph, plumbing, \$8849.

Mo., Princeton—City Board of Education will erect \$55,400 high school; Glen Shipley, Contr., Princeton. (Lately noted.)

Mo., Sullivan—Board of Education, J. H. Fisher, Pres., will erect high school; cost \$28,000; 2 stories; 44x92 and 21x67 ft.; brick; composition shingle roof; wood floors; concrete foundation; Hoener, Baum & Froese, Archts., Federal Reserve Bank Bldg.; McCarthy Construction Co., Contr.; both St. Louis. (Lately noted.)

N. C., Greensboro—City let contract to Barnett Bros., Greensboro, to erect high school building; cost \$26,000.

N. C., Nashville—School Board, B. G. Alford, Chmn., will erect high school; cost \$53,800; Benton & Benton, Archts., Wilson; Gaskill Construction Co., Contr., Wilson; W. M. Wiggins & Co., Wilson, heating and plumbing at \$10,978; Kinston Electrical Supply Co., wiring. (Lately noted.)

N. C., Paw Creek—Mecklenburg County Board of Education, J. M. Matthews, Supt., Charlotte, will erect auditorium and 4-room addition to Chadwick-Hoskins School; Torrence & Todd, Contrs.; McGinn Electric Co., wiring; also erect 6 rooms and extend auditorium to Paw Creek School; McRee & Ford Co., Contr.; Robinson Electric Co., wiring; Chas. W. Christian, heating for both schools; all Charlotte. (Lately noted.)

N. C., Samareand—State Home and Industrial School Board of Managers, Mrs. J. R. Page, Sec., Aberdeen, will erect administration building, school building and several farm buildings; cost \$60,000; one, two and three stories; wood floors; brick foundation; asphalt slate roof; hardwood floors; interior tile; vaults; ventilators; Linthicum & Linthicum, Archts., Raleigh; M. S. Weaver, Contr., Aberdeen; heating contract let July 9. (Lately noted.)

N. C., Winston-Salem—County Board of Education will erect school at Buck Fork and one at Salem; cost \$11,500 each; 5 classrooms and auditorium; brick and hollow tile; D. H. Cooke, Contr., Winston-Salem.

Okl., Oklahoma City—Board of Education, Chas. Evans, Pres., will erect additions to ward schools as follows: Shields Heights School, \$21,201; Wheeler School, \$24,735; Linwood School, \$20,806; Columbus School, \$41,817; Gross Construction Co., Contr.; Westwood and Lee Schools, \$25,575 and \$82,750; Chas. M. Dunning Co., Contr.; Whittier and Wilson Schools, \$19,962 and \$21,693; Campbell & Price, Contrs.; Cook & McDonnell Co., contr. at \$33,215 for plumbing and heating on all schools; all Oklahoma City.

Okl., Tahlequah—Board of Education will erect high school; cost \$52,192; 2 stories; 14 classrooms, auditorium and gymnasium; A. M. Allen, Contr., Siloam Springs, Ark. (Lately noted.)

S. C., Gaffney—School Trustees, N. H. Littlejohn, Chmn., will erect high school; cost \$149,401; 3 stories; fireproof; brick; terra cotta trim; reinforced concrete floors; 24 classrooms; J. J. Baldwin, Archt., Anderson; V. I. Spurgeon, Contr., Gaffney; T. J. Cagle, Gaffney, heating and plumbing at \$22,375; Ave Brill, Spartanburg, wiring at \$5900. (Lately noted.)

S. C., Gaffney—Golden Springs Board of School Trustees, W. A. Haas, Chmn., let contract to Jordan Construction Co., of Greenville, S. C., to erect 2-story, brick veneer school building, containing 8 class rooms and auditorium; cost \$18,000.

Tex., Dayton—School Trustees, R. B. Edgar, Sec., will erect high school; cost \$17,000; 2 stories; 70x55 ft.; brick; Milton W. Scott & Co., Archts., 422½ Franklin St., Waco; Rabe Wilson, Contr., Waco. (Lately noted.)

Tex., Electra—School Board, E. M. Friend, Pres., will erect high school; cost \$124,000; brick, steel and concrete; auditorium to seat

1000, gymnasium, manual training and domestic science rooms, dining room, classrooms to accommodate 600; C. H. Page & Bro., Archts., Austin Natl. Bank Bldg., Austin; Whitehall Construction Co., Contr., Wichita Falls. (Lately noted.)

Tex., Farwell—School Dist. No. 10 will erect \$20,000 building; Smith & Townes, Archts., 310 Blackburn Bldg., Amarillo; J. S. Mordicae, Contr., Clovis, N. M.

Tex., Olney—Olney Independent School Dist. Trustees, W. F. Keathley, Sec., will erect 1-story brick school and remodel heating plans and install plumbing in present school; cost \$31,413; tar and gravel roof; wood floors; concrete foundation; Huseman Co., Archt., Burk Burnett Bldg., Fort Worth; Caddo Mfg. Co., Contr., Anadarko, Okla. (Lately noted.)

Tex., San Antonio—Board of Education will erect two 10-room additions to school on Austin and Zarzamora Sts. and 12-room addition to school on Colima St.; fireproof; Phelps & DeWees, Archts., San Antonio; Jay DePuy, San Antonio, contracts at \$37,310, \$36,780 and \$41,275; Jud & Ormond, plumbing at \$9252 and heating at \$10,092 for all 3 buildings; Thomson Electric Co., electric work at \$1868 for one school; A. H. Shaffer, \$2014 and \$2038 for other 2 structures. (Lately noted.)

Va., Concord—Campbell County Board of Education will erect addition to Concord High School; cost \$14,280; 56x60 ft.; auditorium to seat 500, 4 classrooms, library, etc.; Brown & Smith, Contrs., Appomattox. (Lately noted.)

W. Va., Dunbar—School Board will erect \$75,000 building for Union Dist. High School; 3 stories; brick; stone trim; 16 classrooms, manual training and domestic science rooms; steam heat; Walter F. Martens, Archt., Charleston; Harley & Parkins, Contrs. (Lately noted.)

Stores.

La., Lafayette—Abramson & Rosenfield will erect \$12,000 addition to building on Lincoln Ave.; contract let.

Mo., Cape Girardeau—Henry Fairchild will erect \$25,000 building on W. Broadway; 2 stories; 85x112 ft.; brick; Tuttle Masonry Co., Contr., Cape Girardeau.

S. C., Columbia—Mark's Inc., A. M. Hammond, Mgr., Lady and Main Sts., will remodel store; install glass front, fixtures, etc., contract let.

Tenn., Memphis—Whitehurst Bros. will erect business block, 896-902 Vance Ave.; 1 story; 75x74 ft.; brick and concrete; cost \$10,000; F. M. Reld, Archt.-Contr., Memphis.

Tex., Colorado—John L. Doss will erect business block on N. Walnut St.; 5 stores; brick; plate glass front; J. E. Pond, Contr.

Tex., Dallas—Max and Leonard Eppstein will erect \$21,000 store at Corinth and S. Ervay Sts.; Lang & Wittchell, Archts., 300 American Exchange Bank Bldg.; W. H. King, Contr., 410 Andrews Bldg., both Dallas.

Tex., Fort Worth—Cass O. Edwards will erect \$20,000 business building, Weatherford and Throckmorton Sts.; 2 stories; brick; L. B. Weinman, Archt., 414 Texas Bank

Bldg.; West & Womack, Contrs., Dan Waggoner Bldg., both Fort Worth. (Lately noted.)

Tex., Lamesa—Rix Furniture & Undertaking Co., Jed Rix, Mgr., will erect building; 70x100 ft.; T. A. Miller, Contr., Lamesa.

W. Va., Fairmont—Paul W. Lange and Addison M. Parker, 1016 Hippe Bldg., Des Moines, Iowa, will erect \$75,000 store and office building; 2 stories; 133x60 ft.; brick and stone; Boyd & Moore, Archts., Des Moines; A. H. Neumann & Co., Contrs., Hubbell Bldg., Des Moines. (Lately noted.)

Theatres.

D. C., Washington—Wardman Park Inn, Mr. Dyer, Mgr., plans to erect addition for theater to seat 500.

Mo., St. Louis—Marcus Loew, New York, (Jos. L. Gale, Local Representative), will erect theater at 8th St. and Washington Ave.; cost \$750,000; Thos. W. Lamb, Archt., 644 8th Ave., New York; Advance Wrecking Co., contr. for excavation; Mr. Gale will supervise construction; Mississippi Valley Structural Steel Co., contr. for structural steel and Ben Hur Erection Co., both St. Louis, will erect it. (Lately noted.)

Warehouses.

Ala., Wetumpka—G. E. Ensen has contract to erect cotton warehouse; 100x75 ft.; fireproof.

Fla., Tampa—United Paper Co. will erect \$15,000 storage building at Florida Ave. and Carew St.; 2 stories; brick; metal sash; wire glass; Logan Bros., Contrs., Tampa.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Air Compressor—Port Commrs., Suite 200, New Orleans Court Bldg., New Orleans, La.—Bids until July 19 to furnish air compressor and receiver for the Public Grain Elevator; plans with Supvr. of Purchases, 1 Canal St.

Air Compressor—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Three electric driven air compressors; used equipment, immediate inspection, Southern delivery.

Air Compressors—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices one 300 CFM belt driven air compressor also one 1000 CFM single stage belt driven air compressor.

Alcohol (Wood).—W. E. Cannaday, Dothan, Ala.—Data and prices on the manufacture of wood alcohol, cost of equipment, etc.

Automobile Tire Specialty.—Geo. T. Robinson, Calhoun, Ky.—To contract for the manufacture on a royalty basis an overtire devices.

Band Resaws—See Planers, etc.

Blower—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Dealers prices on ½ housed 10 or 12 ft. diam. blower connected to side crank steam engine; pulley drive will be considered.

Boat (Derrick).—U. S. Engineer Office, St. Paul, Minn.—Bids until July 31 to construct and deliver steel derrick boat.

Boat (Steel, Derrick).—United State Engineer Office, St. Paul, Minn.—Bids until July 31 to construct and deliver steel derrick boat.

Boiler.—W. M. Whaley & Co., 51 Commercial Place, Norfolk, Va.—Dealers prices on 200 to 250 h. p. Scotch marine type boiler for dredge, guaranteed to pass insurance inspection for not less than 150 w. p.; give full description and location.

Boiler.—R. P. Johnson, Wytheville, Va.—Prices on new or second-hand 100 h. p. return tubular boiler for 125 lbs. working pressure.

Boiler—The Graf-Davis Collett Co., Salisbury, N. C.—Second-hand boiler, 150 h. p. high pressure, 150 lbs. steam pressure, overhanging front manhole on top of shell and front head in bottom; grates 36-in. from boiler; good condition, suspension type and strictly Hartford specifications.

Boilers—Ideal Electric and Manufacturing Co., Mansfield, Ohio—Two new or second-hand boilers, 100 h. p., good for 80 to 100 lbs. steam pressure, water tube type; state prices, condition and location.

Bridge.—Volusia County, De Land, Fla., will build 34 culverts and 9 bridges. Details under Construction News—Road and Street Construction.

Bridge.—State Highway Dept., Richmond, Va., will build 4 bridges. Details under Construction News—Road and Street Construction.

Bridge.—State Highway Comm., Frankfort, Ky., will rebuild 4 bridges. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—State Highway Comm., Montgomery, Ala.—Details under Construction News—Road and Street Construction.

Bridge.—State Highway Dept., Oklahoma City, Okla.—Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—Union County, Union, S. C., will build 2 bridges. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—York County, Yorktown, Va.—Details under Construction News—Bridges, Culverts, Viaducts.

Bridges.—City of Clearwater, Fla.—Details

under Construction News—Bridges, Culvert, Viaducts.

Cars (Dump)—See Rock Crushing and Handling Equipment.

Cars (Dump).—C. G. Kershaw Contracting Co., Birmingham, Ala.—Second-hand 12-yd. dump cars.

Cars (Dump).—Saluda Crushed Stone Co., 315 Southeastern Life Bldg., Greenville, S. C.—Several standard gauge 4 yd. dump cars that dump both sides, with MCB couplers.

Cars (Dump).—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—50 all steel two-way dump cars and thirty 3 or 4-yd. double dump contractors cars; used equipment, immediate inspection, Southern delivery.

Cars (Motor).—R. P. Johnson, Wytheville, Va.—Prices on new or second-hand narrow gauge motor cars for railways 36 in. gauge.

Car Wheels.—See Wheels (Truck) and Axles.

Cement (Portland).—Mississippi River Comm., 1st and 2nd Dists, 1006 McCall Bldg., Memphis, Tenn.—Bids until July 21 to furnish and deliver 60,000 sacks of Portland cement.

Compress (Cotton).—Board of Harbor Commrs., Los Angeles, Cal.—Bids until July 13 for high density cotton compress No. 2; Spec. No. 488; Charles E. Simms, Asst. Engineer.

Concrete Mixer.—See Paving Equipment.

Concrete Paving Equipment.—See Paving Equipment.

Concrete Paving Reinforcing.—See Paving Equipment.

Condenser (Surface) etc.—Hackley Morrison Co., Inc. (Mchy. Dealers) 1798 Lewis St., Richmond, Va.—To purchase 1000 ft. surface condenser with steam driven centrifugal circulating pump.

Conveying and Crushing Equipment.—Standard Equipment Co. (Mchy. Dealers,) Birmingham, Ala.—Five electric hoists, three large gyratory crushers and three large jaw crushers, elevators and screens; used equipment, immediate inspection, Southern delivery.

Copper Cable and Transformers.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until July 17 to furnish copper cable and transformers. Blank forms and information (Circular 1542) on application to offices Panama Canal; Asst. Purchasing Agents at Fort Mason, San Francisco, Cal.

Cotton Opener.—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on cotton opener suitable for use in connection with mattress manufacturing.

Crane.—Pennsylvania Equipment Co. (Mchy. Dealers) Norwood Station, Pa.—One second-hand 8-wheel standard gauge locomotive crane, equipped with electric magnet and generator; 20 tons.

Cranes (Electric).—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Two 20-ton electric locomotive cranes; used equipment, immediate inspection, Southern delivery.

Crockery.—Lorick & Lowrance, Inc., Columbia, S. C.—Data and prices on crockery ware, contemplate adding crockery to jobbing stock.

Crushers.—See Conveying Equipment.

Culvert.—City of St. Louis, Mo. Details under Construction News—Bridges, Culverts, Viaducts.

Curb and Gutter, etc.—Hornaday Construction Co., 1261 Central Ave., Memphis, Tenn.—Desires bids from sub-contractor for 30,500 lin. ft. cement curb and gutter, and 2 concrete culverts in western Kentucky.

Derrick Boat Hull.—U. S. Engineer Office, Mobile, Ala.—Bids until Aug. 6 to furnish and deliver one steel derrick boat hull, length 80 ft., beam 34 ft., moulded depth 5 ft.

Derricks.—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Five 15-25-ton steel guy derricks; used equipment, immediate inspection, Southern delivery.

Dikes and Mattresses.—U. S. Engineer Office, 329 Custom House, New Orleans, La.—Bids until Aug. 4 to construct dikes and mattresses at head of South Pass.

Drainage.—Cameron County Water Improvement Dist. No. 1 C. P. Bobo, Pres., Harlingen, Tex.—Details under Construction News—Drainage and Irrigation.

Drainage.—Mecklenburg County Drainage Comm., Charlotte, N. C.—Details under Miscellaneous Construction—Drainage and Irrigation.

Dredge (Land).—Chatham County Commissioners, Savannah, Ga.—Bids until Sept. 20 to furnish one oil burning land dredge, equipped with 1 cu. yd. bucket, 457 h. p. internal combustion engine; designed to dig new ditches and clean out hose already dug; G. Reuben Butler, Clk.

Dredging.—Houston, Tex.—Details under Construction News—Miscellaneous Construction.

Drill Head.—Henry, Millard & Henry Co., (Mchy. Manufacturers) 1059 W. Market St., York, Pa.—Second-hand multiple (4) spindle universal adjustable drill head to take ½ to 1-in. drills and that can be adjusted from 3-in. to 5-in. diam. circle.

Drugs.—Duval Distributing Co., 865 Flor-

ida Ave., Jacksonville, Fla.—To correspond with the manufacturers of Benzole, Acetone and Methyl used in the manufacture of paint and varnish remover.

Electric Irons.—Lorick & Lowrance, Inc., Columbia, S. C.—To correspond with manufacturers of Domanco electric irons.

Electric Lighting, etc.—Board of Public Service, Room 208, City Hall, St. Louis, Mo.—Bids until July 24 to furnish, install and operate electric arc and incandescent light in certain streets, also to furnish, install and maintain gas lamp posts and furnish gas for period of 1 year beginning Sept. 1; specification, etc. at office of Director of Public Utilities.

Electrical Supplies and Equipment.—See Copper Cable and Transformers.

Elevator (Electric, Freight).—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Aug. 2 for one full magnet freight elevator for U. S. Mint at Denver, Col.

Elevators.—See Conveying Equipment.

Elevators.—Everett Bro.'s Motor Co., Athens, Ga.—Prices on elevators.

Engine.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Dealers prices on 100 h. p. slide valve engine; North Carolina delivery.

Engine-Generator Set.—Equitable Equipment Co., Whitney Bldg., New Orleans, La.—Modern 150 to 200 k. w. engine generator set, 3 phase, 60 cycle, 220 volt complete; immediate shipment.

Engines.—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Three double immediate inspection, Southern delivery, drum hoisting engines; used equipment.

Engines.—Pennsylvania Equipment Co., (Mchy. Dealers) Norwood Station, Pa.—To purchase 4 to 6 second-hand consolidation engines, weighing approximately 130,000 pounds on drivers, with drivers approximately 50-in. over tires, 180 to 200 lbs. steam pressure.

Engines (Hoisting).—W. A. Browning Machinery Co., (Mchy. Dealers) 3025 Elm St., Dallas, Tex.—Second-hand hoisting engines, both single and double drum.

Foundry Equipment.—Everett Bro.'s Motor Co., Athens, Ga.—Prices on equipment for foundry, machine shop, pattern and draftsman equipment.

Garage Equipment and Supplies.—Everett Bros.'s Motor Co., Athens, Ga.—Prices on electrical equipment for cars, piston rings, spark plugs, carburetors, forgings of all kinds, die castings, sheet metal, screws, rivets, crane hoists, steam and electric power units, pneumatic tools, etc.

Gas Compressor.—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Two portable gas compressors; used equipment, immediate inspection, Southern delivery.

Hand Drills.—See Pipe Threading Tools, etc.

Hemstitching Machines.—Warden Fravel, Woodstock, Va.—To purchase hemstitching sewing machines.

Hoists.—See Conveying Equipment.

Inland Waterway.—U. S. Engineer Office, Wilmington, Del.—Bids until Aug. 2 to excavate inland waterway from Delaware river to Chesapeake bay, Delaware and Maryland (Chesapeake and Delaware Canal).

Kilns (Dry).—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Four big dry kilns; used; immediate inspection, Southern delivery.

Lamp Posts.—See Electric Lighting, etc.

Locomotive (Gasoline).—See Rock Crushing and Handling Equipment.

Locomotives.—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Four 3-8-ton gasoline locomotives; one 60 to 90-ton geared locomotive and four 16 to 35 tons saddle tank locomotives; used equipment, immediate inspection, Southern delivery.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until July 20 to furnish steel cable; steel, iron and lead pipe; special bronze; pipe fittings; bibb cocks; grease cups; flue expanders; pliers; window glass; cement; castor oil; rubber tubing; towels; and yellow pine lumber. Blank forms and information (Circular 1544) on application to offices of Panama Canal; Asst. Purchasing Agents at 24 State St., New York; 611 Gravier St., New Orleans, La.; also U. S. Engineer offices throughout the country.

Motors.—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on two 3 phase, 60 cycle, 100 or 150 h. p. motors, standard voltage desired.

Nut Cracking and Hulling Machines.—J. J. Elliott, Kellogg's Landing, La.—To correspond with manufacturers of power machines for cracking and hulling pecans.

Paint.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until July 23 to furnish 250 gals. aluminum bronze paint, 2000 gals. turpentine, 150 gals. paint drier, 500 gals. linseed oil, 250 gals. white enamel paint, 300 lbs. putty, varnish, pumice stone, brushes, etc.; delivery Marine Barracks, Quantico, Va.; 250 gals. green paint, ready mixed, delivery Naval Operating Base, Hampton Roads, Sewells Point, Va.; Sch. 36-1924.

Paving.—City of Baltimore, Md. Details under Construction News—Road and Street Construction.

Paving.—City of Huntington, W. Va. Details under Construction News—Road and Street Construction.

Paving.—City of Ada, Okla.—Details under Construction News—Road and Street Construction.

Paving.—City of Tallahassee, Fla.—Details under Construction News—Road and Street Construction.

Paving (Concrete) Mixers.—W. A. Browning Machinery Co. (Mchy. Dealers) 3025 Elm St., Dallas, Tex.—Second-hand paving mixers.

Paving Equipment and Materials.—T. M. Howerton, Asheville, N. C.—Prices on concrete paving equipment, including mixer and other similar equipment, reinforcing, wagon loaders, road forms.

Pipe (Cast Iron).—Liberty Realty Co., Box 239, Roanoke, Va.—Prices on 6-in. cast iron water pipe, second-hand.

Pipe (Water).—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—20,000 ft. of 8-in. and 8000 ft. of 6-in. and 5000 ft. of 3 and 4-in. double strength water pipe; used equipment, immediate inspection, Southern delivery.

Pipe Threading Tools, etc.—Horace Wiltbank, The Victoria, Apartment 24, 14th and Clifton Sts., Washington, D. C.—To correspond with manufacturers of pipe threading tools and hand drills.

Piping.—See Water Works Equipment.

Planers, etc.—Wilson-Hock Co. (Mchy. Dealers)—City Point, Va.—Dealers prices on several high speed planers and band resaws.

Plumbing Equipment.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Dealers prices on used plumbing equipment in ½ doz. lots including kitchen sinks, hot water boilers, etc.

Pump (Centrifugal).—See condenser (Surface) etc.

Pump (Centrifugal).—Wilson-Hock Co.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

(Mchy. Dealers) City Point, Va.—Dealers prices on 1000 gpm., 1800 rpm. centrifugal pump to deliver water at 40 lb. pressure, suitable for direct connection to motor.

Pump (Centrifugal)—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on 750 GPM centrifugal pump, approximately 8 in. suction, 300 RPM suitable for connection to water wheel.

Pumping Equipment—See Water Works Equipment.

Pumping Equipment—City of Columbia, S. C.—Bids until Aug. 7 for the following pumping equipment, two units each, consisting of: one horizontal split case single stage centrifugal pump, with capacity of 8325 gal. per min., direct connected with electric motor; W. S. Tomlinson, City Engr.

Rails (Relay)—See Rock Crushing and Handling Equipment.

Rails (Relaying)—Standard Equipment Co (Mchy. Dealers), Birmingham, Ala.—500 tons of 50-60-70 or 80 lbs. of relay rails; used, immediate inspection, Southern delivery.

Reflectors (Parabolic)—C. D. Ehrman, 300 Harrison St., Lynchburg, Va.—Several parabolic reflectors made to definite specifications, same as used in automatic headlights.

Road—Blanco County, Johnson City, Tex. Details under Construction News—Road and Street Construction.

Road—Brooks County, Falfurrias, Tex. Details under Construction News—Road and Street Construction.

Road—Escambia County, Pensacola, Fla. Details under Construction News—Road and Street Construction.

Road—Mingo County, Williamson, W. Va., will build 2 roads. Details under Construction News—Road and Street Construction.

Road—U. S. Dept. of Agriculture, Bureau of Public Roads, Washington, D. C., in cooperation with Montgomery County, Md. Details under Construction News—Road and Street Construction.

Road—Volusia County, De Land, Fla. Details under Construction News—Road and Street Construction.

Road—State Highway Dept., Richmond, Va., will build 9 roads. Details under Construction News—Road and Street Construction.

Road—State Roads Comm., Baltimore, Md., will build 4 roads. Details under Construction News—Road and Street Construction.

Road—State Roads Comm., Baltimore, Md., will build 2 roads. Details under Construction News—Road and Street Construction.

Road—State Road Dept., Tallahassee, Fla. Details under Construction News—Road and Street Construction.

Road—Bolivar County, Cleveland, Miss.—Details under Construction News—Road and Street Construction.

Road—Hill County, Hillsboro, Tex.—Details under Construction News—Road and Street Construction.

Road—Pointe Coupee Parish, Road Dist. No. 5, New Roads, La.—Details under Construction News—Road and Street Construction.

Road—State Highway Comm., Frankfort, Ky., will build 28 roads. Details under Construction News—Road and Street Construction.

Road—State Highway Comm., Montgomery, Ala.—Details under Construction News—Road and Street Construction.

Road—Tarrant County, Fort Worth, Tex. Details under Construction News—Road and Street Construction.

Road—Baltimore County, Towson, Md.—Details under Construction News—Road and Street Construction.

Road—Highlands County, Sebring, Fla. Details under Construction News—Road and Street Construction.

Road—Louisiana Highway Comm., Baton Rouge, La. Details under Construction News—Road and Street Construction.

Road Forms—See Paving Equipment.

Road Roller—R. C. Brooks, Cornelia, Ga.—To purchase or rent second-hand 10 ton road roller.

Road Roller—City of Asheville, N. C., J. E. Linder Purchasing Agent—Bids until July 21 for one 10 ton gasoline driven road roller.

Roads—City of Clearwater, Fla.—Details under Construction News—Road and Street Construction.

Rock Crushing and Handling Equipment—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Dealers prices on rock crusher, 10 to 15 ton per hour; screen washer; 36 in. gauge dump cars; gasoline locomotive; 20 lbs. relay rails; 1/2 yd. traction shovel either jaw or swing hammer crusher suitable.

Sanding Machines (Floor)—Lorick & Lowrance, Columbia, S. C.—To correspond with manufacturers of floor sanding machines.

Sash Cord Machinery—Wallace C. Tompkins, Edgefield, S. C.—Data and prices on machinery for the manufacture of window sash cord.

Scows—U. S. Engineer Office, Box 72, Louisville, Ky.—Bids until July 10 to furnish and deliver 6 steel dump scows.

Screen Washer—See Rock Crushing and Handling Equipment.

Sewer—City of Tallahassee, Fla. Details under Construction News—Road and Street Construction.

Sewer Construction—City of DeQueen, Ark. Details under Construction News—Sewer Construction.

Shovel (Steam)—W. M. Layton Brick Co., Smithfield, N. C.—To purchase new or second-hand steam shovel; state price, delivery and terms.

Shovel (Traction)—See Rock Crushing and Handling Equipment.

Shovels (Electric and Gasoline)—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—Two 1 1/2-yd. electric shovels and one revolving gasoline engine shovel on crawlers; used equipment, immediate inspection, Southern delivery.

Snap Fasteners—W. W. Harwell, Chunchula, Ala.—To correspond with manufacturers of snap fasteners such as used on purses, handbags, etc.

Specialties—Geo. T. Robinson, Calhoun, Ky.—To contract for the manufacture on a royalty basis the following novelties: Men's curved clip hat comb, auto hat holder, double replaceable fly swatter.

Spices, Extracts, etc.—McComb Coffee Co., R. P. McCullough, Pres., McComb, Miss.—To purchase in bulk spices, extracts, etc.

Steel Buildings (Sectional)—F. J. Gardner 622 Wagner St., Fort Wayne, Ind.—To correspond with manufacturers of ready made sectional steel buildings.

Steel Stack—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Dealers prices on

self supporting steel stack 8 or 10 ft. diam. 125 to 150 ft. high.

Steel Tank—See Water Works Equipment.

Stone and Rubble—U. S. Engineer Office, Detroit, Mich.—Bids until July 30 to furnish and placing stone and rubble mound at Alpena Harbor, Mich.

Stone Curb Circles—Board of Awards, Mayor Howard W. Jackson, Pres., Baltimore, Md.; bids until July 18 to furnish stone curb circles, f. o. b. cars Baltimore.

Street Improvement—City of Frostburg, Md., and State Roads Comm., 601 Garrett Bldg., Baltimore, Md.—Details under Construction News—Road and Street Construction.

Street Improvement—Town of Senatobia, Miss.—Details under Construction News—Road and Street Construction.

Street Sprinkler, etc.—Duncan Machinery Co. (Mchy. Dealers) Box 285, Knoxville, Tenn.—Jobbers prices on used team drawn street sprinkler, mounted on wheels, prefer combined machine for sprinkling and flushing streets; immediate delivery.

Surveyors' Equipment—Brown & Gibbs, Asheville, N. C.—Used transit having vertical arc, state condition, number and price.

Tank—See Tower (Steel) and Tank.

Tank and Tower—See Water Works Equipment.

Tower (Steel) and Tank—Coggins Marble Co., Canton, Ga.—Second-hand steel tower and tank, tower 50, 60, 75 or 80 ft. high, capacity of tank 8, 10, 15 or 20,000 gals.

Track (Portable)—Standard Equipment Co. (Mchy. Dealers), Birmingham, Ala.—5 mi. of 16 to 25 lbs. of portable track; used equipment, immediate inspection, Southern delivery.

Transformers—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on three transformers 100 k.v.a. each, single phase, 60 cycle, 2300 volts high tension, 575 volts low tension, General Electric or Westinghouse transformers preferred; also one k.v.a. and three 15 k.v.a., single phase, 60 cycle transformers, 2200 volt high tension 550 volt low tension.

Transformers—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on three 500 KVA out door type transformers, 13,200 volt high tension, 2200 volt low tension.

Vaults—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Aug. 2 to construct (except vault entrance and 1 ft) two additional reinforced concrete and steel vaults for U. S. Mint at Denver, Col.

Wagon Loaders—See Paving Equipment.

Waterworks—City of DeQueen, Ark.—Details under Construction News—Water-Works.

Waterworks—City of Lufkin, Tex. Details under Construction News—Water-Works.

Waterworks—Fred Bennett, Engr., Citizens Bank Bldg., Pine Bluff, Ark.—Prices on well not less than 800 ft. deep, 60,000 gal. tank with 125 ft. tower, also necessary pumping equipment, piping for mains, etc.

Waterworks—City of Norfolk, Va.—Details under Construction News—Water Wks.

Well (Water)—See Water Works Equipment.

Wheels (Truck) and Axles—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on 12 to 14 in. truck wheels and axles for building 36 in. gauge industrial cars.

Financial News

New Financial Corporations.

Ala., Birmingham—Woodlawn Building Association, capital \$1,000,000 incorporated with A. W. Bell, Pres.; M. G. Prickett, Vice-Pres.

Ala., Carbon Hill—State Bank of Carbon Hill, incorporated by J. T. Wakefield, Pres.; Dr. O. H. Whitney, First Vice-Pres.

D. C., Washington—Real Estate Mortgage and Guaranty Corp., authorized capital \$10,000,000; incorporated with L. E. Breuninger, Pres.; Thomas Somerville, Vice-Pres.

Fla., Daytona—J. E. Rawlings, capital \$25,000 incorporated by J. E. Rawlings, Alfred A. Green and C. C. Snow.

Ga., Macon—Beneficial Loan Society of Macon, capital \$150,000, incorporated by George Hodson, Thos. W. Cullen, Philip L. Garett.

Ky., Sturgis—Bank of Sturgis, capital \$15,000, incorporated by H. Ellis, F. Richardson, Nell Coleman and others.

Md., Baltimore—Bd. of Directors of National Bank of Baltimore, 22 Light St., will organize the Emerson Trust Co., with \$1,000,000 capital and surplus, T. Rowland Thomas, Pres., National Bank of Baltimore; Capt. Isaac Emerson, Emerson Hotel, and others directors of National Bank of Baltimore will probably compose the board of directors of new company.

Md., Baltimore—Far Eastern Finance Corporation, Calvert Bldg., capital \$2,500,000, incorporated by George S. Newcomer, Douglas H. Rose and James Carey, 3rd.

Miss., Natchez—Natchez Building and Loan Assn., capital \$5000, incorporated with P. W. Mulvihill, Pres.; James S. Fleming, Sec.

Mo., St. Louis—Bennett Mortgage Co., capital \$100,000, incorporated with Tom W. Bennett, Pres.; H. H. Hodgdon, Vice-Pres.; F. E. Henry, Sec.

Mo., St. Louis—Hamilton Finance Co., capital \$40,000 incorporated by C. Nichols, E. Bernd, L. E. Miller, H. E. Sprague, B. L. Schwartz.

Mo., St. Louis—Sherbro Investment Co., incorporated by Nellie T. Sheridan, J. T. Sheridan, W. J. Sheridan.

N. C., Shelby—Shelby Insurance & Realty Co. will consolidate with the Union Trust Co., Capt. J. Frank Roberts, Mgr.

N. C., Spencer—P. Stoudemire, T. E. Johnston, C. W. Crowell and others interested in organizing a new bank with \$80,000 capital.

Okla., Blanchard—First State Bank, capital \$25,000, incorporated with I. J. Zucker, Pres.; G. T. Baze, Vice-Pres. and H. E. Green, Cashr.

Okla., Junction—Junction Cattle Loan Co., capital \$25,000, incorporated by W. P. Riley, E. E. Bolt, W. H. McKee.

Okla., Sapulpa—First National Bank of Sapulpa will reorganize with F. B. Reed, Pres.

S. C., Columbia—Palmetto Bank & Trust Co., capital \$1,600,000, incorporated by H. G. Kaminer, W. A. Coleman, I. M. Mauldin and others.

S. C., Columbia—The Liberty National Bank, Palmetto National Bank and the Merchants Bank plan merging as the Palmetto Bank and Trust Co. with \$2,500,000 capital.

Tex., Austin—Texas Guaranty Fund Bankers, incorporated with R. W. Thornton, Dallas; Walton D. Hood, San Antonio; Eldred McKinnon, Austin, and others, directors.

Tex., Dallas—Miller Investment Co., capital \$30,000 incorporated by W. G. Miller, J. W. Miller and L. M. Rice.

Tex., Dallas—Miller Johnson Co., capital \$15,000, incorporated by B. F. Johnson, W. M. McKinney, H. C. Miller.

Tex., Houston—American Industrial Investment Co., capital \$25,000 incorporated with Colonel R. M. Johnston, Pres.; Frank B. McCurdy, Vice-Pres.

Tex., Kingsbury—Equitable Finance Corporation capital \$100,000 incorporated by W. W. McAllister, B. F. Dittmar and R. E. Cadwallader, all of San Antonio.

Tex., Muenster—State Bank of Nuenster, capital \$17,500, incorporated; J. W. Muerer, J. D. Leeper, Henry G. Stolzer and William Walterschied, directors.

Tex., Norton—First National Bank of Norton, capital \$25,000 incorporated with J. D. Good, Pres.; W. W. Mitchell, Vice-Pres.

Va., Lynchburg—Lynchburg Building & Loan Assn., capital \$3,000,000 incorporated by Richard Habcock, W. M. Heald, K. D. Scott, G. E. Caskie and others.

Va., St. Paul—Bank of St. Paul, capital \$25,000, incorporated with J. S. Rasnick, Pres.; J. J. Cox, Vice-Pres.

W. Va., Charleston—The Elk Banking Co. changes name to Charleston Trust Co., Harrison B. Smith, Pres.; Albert J. Humphreys, Vice-Pres.

W. Va., Clarksburg—Pople, Boyles and Stout, Inc., capital \$100,000, incorporated by Harry Pople, D. L. Boyles, H. B. Stout.

W. Va., Huntington—Commercial Mortgage & Discount Co., capital \$1,000,000, incorporated with E. J. King, Pres.; David Foy, Sec.

New Securities.

Ala., Albany—Funding—City sold \$96,000 bonds to bond buyers in New York. Address The Mayor.

Ala., Anniston—Indebtedness—City sold \$100,000 bonds. Address The Mayor.

Ala., Anniston—Sidewalk—City sold \$18,000 bonds to Ward, Sterne & Co., of Birmingham, at par and accrued interest. Address The Mayor.

Ala., Leeds—School—City voted \$40,000 bonds. Address The Mayor.

Ala., Mobile—Street and Sewer—City plans issuing \$350,000 bonds; Frank Yerker, City Atty.

Ala., Russellville—Sewer—City will receive bids until July 25 for \$55,000, \$1000 denom. bonds; W. W. Ramsey, Mayor.

Ala., Valley Head—School—City voted \$8000 bonds. Address The Mayor.

Ark., Paragould—Paving—City sold \$31,000, 5½% bonds to Jos. R. Bertig of Paragould. Address The Mayor.

Ark., Van Buren—Water—City sold \$210,000 bonds to the First National Bank of Fort Smith. Address The Mayor.

Ark., Walnut Ridge—Street—City will open bids July 10 for \$13,500, 6 per cent bonds of Street Improvement Dist. No. 3; W. A. Henry, Chrmn.

Fla., Bushnell—Light—Bushnell voted \$15,000 bonds. Address The Mayor.

Fla., Clearwater—Road—Pinellas County, Pinellas Park Road and Bridge Dist., contemplates \$251,000 bond issue. Address County Comms.

Fla., Cocoa—Funding—City will receive bids until July 14 for \$58,000, 5% bonds; Morris W. Weinberg, Chmn.

Fla., Eagle Lake—Water—City voted \$12,500 bonds. Address The Mayor.

Fla., Fort Pierce—Inlet—City voted \$220,000 bonds; will receive bids for same until July 24. Address The Bd. of Inlet Comms.

Fla., Gainesville—Road and Bridge—Alachua County will receive bids until July 23 for \$562,000 bonds; R. C. Bowers, Sec.

Fla., Leesburg—Street and Sewer—City will vote July 17 on \$97,000 bonds. Address The Mayor.

Fla., Longwood—School—Town will vote July 10 on \$30,000 bonds. Address Bd. of Education.

Fla., Plant City—School—Special Tax School Dist. No. 32 will vote July 31 on \$600,500 bonds. Address School Dist. Trustees.

Fla., Punta Gorda—Road—Charlotte County sold \$200,000 bonds to G. B. Sawyer & Co., of Jacksonville, at par and a premium of \$750,000. Address County Comms.

Fla., Tampa—Bridge, Street, Seawall, Park, Sewer Building, etc.—City plans voting Sept. 4 on about \$2,000,000 bonds. Address City Comm.

Fla., West Palm Beach—Municipal—City sold \$114,000 bonds to the Farmers Bank & Trust Co. at par and accrued interest and a premium of \$2800. Address The Mayor.

Ga., Atlanta—Park—City will vote September 5 on \$2,000,000 bonds. Address The Mayor.

Ga., Atlanta—Municipal Market—City sold \$150,000 bonds to the Lowery Bank & Trust Co., of Atlanta. Address The Mayor.

Ga., Barwick—School—Barwick votes July 7 on \$20,000 bonds. Address Pres. Bd. of Education.

Ga., Ellenton—School—Ellenton School Dist. will vote July 30 on \$10,000 bonds. Address School Dist. Trustees.

La., Alexandria—School—Rapids Parish School Bd. sold \$175,000 Lecompte School Dist. No. 4 bonds at par and accrued interest and a premium of \$1750; \$50,000 Cheneyville School Dist. No. 3 bonds at par and accrued interest and premium of \$350. Address Parish School Bd.

La., DeRiddle—Road—Beauregard Parish sold \$150,000 bonds to Caldwell & Co. of Nashville, Tenn. at par and a premium of \$1581. Address Parish Police Jury.

La., Lecompte—Light and Water—City sold \$45,000, 6% bonds to Sutherland, Barry & Co., Inc., of New Orleans. Address The Mayor.

La., Monroe—Highway—Morehouse Parish will receive bids until July 25 for \$1,100,000 bonds; N. D. Cole, State Highway Engr.

La., Moreauville—Drainage—Avoyelles Drainage Dist. No. 12 will receive bids in Moreauville until July 17 for \$17,200 bonds; C. L. Gauthier, Pres.

La., Raceland—School—Raceland School Dist. voted \$45,000, 6% bonds. Address School Dist. Trustees.

La., Shreveport—School, Water Works—

(Continued on page 112)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Has never had to use chains on these Kelly Kats

The Motor Service Transfer Co., of Lincoln, Nebraska, writes as follows about the satisfaction Kelly Kats are giving on the trucks pictured above:

"We have used two sets of your Caterpillar cushion tires for the past three months with absolute satisfaction.

"One set is a change-over on a one-ton Diamond T truck and we find that Caterpillars are not only just as resilient as the pneumatics formerly used but have more traction. We have used them in mud many times, sometimes in very bad places, but have never had to use chains.

"We are going to put Caterpillars on our Diamond T two-ton truck—in fact, after our experience, we would not consider using anything else."

The value of traction in a truck tire can not be over-estimated, but the big thing about Kelly Kats is, that in addition to unequalled traction they also give to a marked degree all the other qualities which the truck owner wants in tires.

They cushion the truck practically as well as big pneumatics, stand as much punishment as ordinary solids and deliver long, economical mileage.

There are no Caterpillar tires but Kelly Kats

KELLY-SPRINGFIELD TIRE
COMPANY

250 West 57th Street, New York



KELLY KATS

THE TIRES WITH NINE LIVES



City will vote on \$1,000,000 school bonds and \$800,000 water works bonds. Address The Mayor.

Md., Annapolis—Indebtedness—State will receive bids until Aug. 9 for \$750,000, 4½% bonds; Albert C. Ritchie, Gov.

Miss., Holly Bluff—School—Holly Bluff will vote on \$35,000 bonds. Address The Mayor.

Miss., Meadville—Bridges—Franklin County contemplates \$35,000 bond issue. Address Board of Supvrs.

Miss., Meridian—Street—City sold \$144,000 6% bonds to Sidney Spitzer & Co. of Toledo at par and a premium of \$4560. Address The Mayor.

Miss., Natchez—Highway—Adams County sold \$25,000, 5 per cent bonds to the City Bank & Trust Co. at par and accrued interest; D. L. Thompson, Chrmn.

Miss., New Albany—Road—Union County voted \$200,000, 5% bonds; W. H. Speck, Chancery Clk.

Miss., Pascagoula—Highway — Jackson County will issue \$387,000 bonds. Address County Commrs.

Miss., Port Gibson — Road — Claiborne County, Dist. 4, embracing Hermanville; voted \$60,000 bonds. Address County Commrs.

Miss., Purvis — School — Olaoh Separate School Dist. sold \$12,000, 5 per cent bonds to a private purchaser. Address School Dist. Trustees.

Miss., Tupelo—Street—City contemplates voting July 28 on \$150,000 bonds; D. W. Robins, Mayor.

Miss., Vicksburg—Road and Bridge—Warren County contemplates voting Aug. 7 on \$500,000 bonds. Address Board of Supvrs.

Mo., Cameron—School—City voted \$12,000 bonds. Address The Mayor.

Mo., Excelsior Springs—Paving—City will vote July 17 on \$20,000 bonds. Address The Mayor.

Mo., Hannibal — School Hannibal voted \$600,000 bonds. Address Bd. of Education.

Mo., Joplin—School—City will vote July 20 on \$75,000 bonds. Address The Mayor.

Mo., King City—School and Water—City sold \$57,500 school bonds and \$70,000 water bonds to the Commerce Trust Co. of Kansas City. Address The Mayor.

Mo., Oak Ridge—School—Oak Ridge voted \$18,000 bonds. Address The Mayor.

Mo., St. Louis—Municipal—City sold \$2,500,000 bonds to a syndicate headed by George H. Burr & Co., of St. Lou's. Address The Mayor.

Mo., Sedalia—School—City will issue \$500,000 bonds. Address The Mayor.

Mo., Sedalia—Court House—Pettis County sold \$45,000, 4½%, \$1000 denom. bonds to the National Bank of Commerce of St. Louis. Address County Commrs.

Mo., Unionville—Court House — Putnam County will receive bids until July 20 for \$150,000, 5%, \$1000 denom. bonds. Address County Commrs.

N. C., Beaufort—Road and Bridge—Carteret County will receive bids until Aug. 6 for \$50,000, 5½%, \$1000 denom. bonds. W. L. Stancil, County Auditor.

N. C., Fairview—School—Town will vote August 6 on \$50,000 bonds. Address The Mayor.

N. C., Fremont—School—Fremont Graded School Dist. opens bids July 12 for \$15,000 bonds; E. G. Deans, Sec.

N. C., Gastonia—School—Gaston County sold \$95,000 bonds to Well, Roth & Irving Co., of Cincinnati. Address Bd. of Education.

N. C., Graham—Funding—Alamance County will open bids July 12 for \$95,000 bonds. Address County Commrs.

N. C., Hamlet—School — Hamlet Public School Dist. will receive bids until July 17 for \$40,000, 5%, \$1000 denom. bonds; C. C. Carter, Mayor.

N. C., Lenoir—Water—Town will open bids July 12 for \$125,000 bonds; J. T. Pritchett, Town Clk.

N. C., Lexington — School—Lexington School Dist. No. 1 will receive bids until July 12 for \$45,000, 6 per cent, \$1000 denom. bonds; H. N. Kaminer, Chrmn.

N. C., Oxford—Street—Town sold \$182,000 bonds to H. D. Fellowers of Chicago at par and a premium. Address The Mayor.

N. C., Raleigh — School — State will issue \$5,000,000 bonds. Address State Bd. of Education.

N. C., Roxboro—Water, Sewer, Public Improvement—City sold \$170,000 water works \$30,000 sewer and \$30,000 public improvement bonds to Prudden & Co. of Toledo. Address The Mayor.

N. C., Spencer—Street—Town will receive bids until July 20 for \$180,000, 6%, \$1000 denom. bonds; C. L. Burton, Town Clk.

N. C., West Hickory—School—Town will receive bids until August 1 for \$12,000, 6%, \$500 denom. bonds. P. O. Moore, Clk.

Okla., Beggs—City Hall—Beggs will vote on \$7000 bonds. Address The Mayor.

Okla., McAlester—Courthouse—Pittsburgh County voted July 10 on \$300,000 bonds. Address County Commrs.

Okla., Shawnee—School—City votes July 10 on \$80,000 bonds. Address The Mayor.

S. C., Andrews—Water and Sewer — City votes July 10 on \$100,000 bonds. Address City Clk.

S. C., Beaufort—Bridge—Beaumont County will receive bids until Aug. 7 for \$50,000, 6% bonds; C. G. Luther, Chmn.

S. C., Heath Springs—Water and Light—Town sold \$35,000 bonds to Leroy Spring of Lancaster, S. C., at par and accrued interest; \$10,000 for light and \$25,000 for water. Address The Mayor.

S. C., Honea Path—School—Honea Path sold \$65,000 bonds to the Bank of Honea Path. Address The Mayor.

S. C., Marion—School—Marion County will open bids July 13 for bonds not to exceed \$100,000, \$1000 denom. bonds; R. J. Blackwell, Clk.

S. C., Newberry—Road and Bridge—Newberry County Highway Comn. sold \$118,000, 5% bonds to the Exchange Bank of Newberry.

S. C., York—Road—York County contemplates voting on \$2,000,000 bonds; L. A. Harris, Sec. County Highway Commrs.

Tenn., Bradley—Funding and School—City voted \$45,000 funding bonds and \$75,000 school bonds. Address The Mayor.

Tenn., Bristol—Improvement—City sold \$99,500 bonds to the Bank of Bristol. Address The Mayor.

Tenn., Halls—School—Halls voted \$35,000 bonds. Address The Mayor.

Tenn., Linden—Road—Perry County authorized a bond issue of \$25,000. Address County Commrs.

Tenn., Loudon—Bridge—Loudon County voted \$125,000 bonds; G. G. McClure, Res. Engr.

Tenn., Maryville — Road—Blount County authorized \$150,000 bond issue. Address County Commrs.

Tenn., Morristown—Funding—City sold

\$90,000 5½ per cent bonds to Caldwell & Co., of Nashville at a premium of \$500. Address The Mayor.

Tenn., Murfreesboro—Street—City opened bids July 10 for \$84,000, \$1000 denom. bonds; J. E. Stockard, City Recorder.

Tenn., Rutledge—School—Grainger County voted \$20,500 bonds. Address County School Bd.

Tex., Carrizo Springs — Road — D'mmit County contemplates voting on \$450,000 bonds. Address County Commrs.

Tex., Beeville—School—Beeville Independent School Dist. will vote on \$15,000 bonds; M. W. Bates, Sec. Bd. of Trustees.

Tex., Corsicana — Road — Navarro County will vote July 28 on \$4,750,000 bonds. Address County Commrs.

Tex., Daingerfield—School — Daingerfield Independent School Dist. voted \$15,000 school bonds. Address School Dist. Trustees.

Tex., Dallas—Street, School, Sewer, Park and Fire Station—City will open bids July 11 for \$3,325,000 bonds, including \$1,250,000 for streets; \$1,000,000 for schools; \$500,000 for sewer; \$325,000 for parks; \$150,000 for sanitary sewers; \$100,000 for fire station; M. G. James, City Sec.

Tex., Danbury—School—Danbury School Dist. voted \$25,000 bonds. Address Dist. School Trustees.

Tex., Ector — School—Ector Independent School Dist. sold \$14,000, 6% bonds to Hall & Hall of Temple at par. Address School Dist. Trustees.

Tex., El Paso—Paving—Boettcher, Porter & Co. of Denver purchased \$150,000, 6% bonds. Address The Mayor.

Tex., Floresville—Road—Wilson County Road Dist. No. 3 will vote on \$100,000 bonds. Address County Commrs.

Tex., Fort Stockton—Water—Pecos County Water Improvement Dist. No. 1, sold \$60,000 bonds to J. R. Mason & Co. Address Dist. Trustees.

Tex., Georgetown — Road — Williamson County will vote July 21 on \$30,000 bonds; R. A. Nichols, County Engr.

Tex., Idalou—School—Idalou Independent School Dist. sold \$50,000 bonds. Address School Dist. Trustees.

Tex., Lampasas—Water—City voted \$15,000 or \$20,000 bonds; R. L. Walker, Mayor.

Tex., Lingleville—School—City voted \$14,000 bonds. Address Chmn. Bd. of Trustees.

Tex., Lubbock—School—Lubbock Independent School Dist. sold \$80,000 bonds. Address Pres. School Bd.

Tex., Memphis—Road—Hall County, Turkey Road Dist., voted \$100,000 bonds. Address A. C. Hogman, County Judge.

Tex., Mesquite—School—City voted \$40,000 bonds. Address Pres. Board of Trustees.

Tex., Nacogdoches—Court House and Refunding—Nacogdoches County sold \$43,000, 5 per cent bonds to Brown-Crummer Co. of Wichita. Address County Commrs.

Tex., Palestine—Road—Anderson County will receive bids until July 20 for \$266,000, 5%, \$1000 denom. bonds; W. C. Quick, County Judge.

Tex., Vernon—School—City sold \$110,000 5½% bonds to the Austin Trust Co. of Austin. Address The Mayor.

Tex., Waco—School—Highland place voted again July 10 on \$24,000 bonds; B. F. Poynor, presiding Judge.

Tex., Waxahachie — Levee — Ellis County Levee Improvement Dist. No. 11 plan voting on \$52,000 bonds. Address Dist. Commrs.

(Continued on page 114)

Barrett Specification Roofs

Bonded for
20 and 10
Years



The Wearing Surface— Essential to Right Roof Construction

AS you probably know, the original Barrett Specification for flat roof construction—drawn up with the cooperation of leading architects, construction engineers and contractors—called for a wearing surface of slag or gravel.

Since that day inspection of tens of thousands of roofs of all types and the experience of thousands of owners, architects, building engineers and contractors have definitely established the value and need of such a wearing surface—have definitely established these facts:

1. That a wearing surface of slag or gravel, interposing an armor-plate of fireproof rock between the building and flying embers, is an all-important factor in fire protection. (The National Board of Fire Underwriters give Barrett Specification Roofs the base rating.)

2. That the slag or gravel which holds in place the heavy, poured (not mopped) top coat of Specification

Pitch, makes it possible to use more than twice the amount of waterproofing material that is practical where no wearing surface is laid. This fact holds good regardless of the type of bituminous material employed. And, as you know, it is the amount of waterproofing material that goes into a built-up roof that largely determines its life and service.

3. This wearing surface protects against surface wear—defies the scuffing of heavily shod workmen. The firmly imbedded gravel or slag is proof against erosion or washing away.

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Va., Clifton Forge—Street—City sold \$120,000 bonds. Address The Mayor.

Va., Princess Anne—Road—Princess Anne County will receive bids in July for \$250,000, 5½%, \$1000 denom. bonds; J. F. Woodhouse, Clk. Bd. of Supervisors.

Va., Roanoke—Highway—Roanoke Highway Improvement Corporation will issue \$200,000 bonds.

W. Va., Charleston—Bridge—Kanawha County contemplates voting Aug. 7 on \$1,500,000 bonds. Address County Commrs. (Lately noted.)

W. Va., Mill Creek—Water—Town voted \$12,000 bonds. Address The Mayor.

W. Va., Ponca—School—Ponca Dist. voted \$50,000 bonds for Raymond City. Address School Dist. Trustees.

Financial Notes.

American Building Association, Ashland, Ky., will increase capital from \$1,000,000 to \$2,000,000.

Citizens National Bank, Clarksburg, W. Va., will increase capital from \$50,000 to \$90,000.

Exchange National Bank, Tulsa, Okla., will increase capital from \$1,500,000 to \$2,000,000.

Farmers' Bank & Trust Co., Irvine, Ky., will increase capital from \$30,000 to \$50,000.

First National Bank of Opp, Opp, Ala., contemplates increasing capital from \$100,000 to \$200,000.

First State Bank of Port Lavaca, Tex., increased capital from \$37,000 to \$50,000.

Guaranty Savings & Loan Assn., Springfield, Mo., plan increasing capital from \$2,000,000 to \$3,000,000.

Peoples Bank of Lenoir City, Lenoir City, Tenn., will increase capital from \$25,000 to \$50,000.

The Home & Savings Building & Loan Assn., Ashland, Ky., will increase capital from \$5,000,000 to \$10,000,000.

Industrial News of Interest.

Maryland Offers \$1,000,000 Securities for Sale.

Bids are being invited by the State of Maryland, according to formal announcement elsewhere in this issue for a total of \$1,000,000 of its 4½ per cent certificates of indebtedness, these consisting of \$750,000 of the General Construction Loan and

\$250,000 of the Baltimore-Southern Maryland Trunk Line Road Loan, both to be dated August 15, 1923. These certificates are payable in series over a period of years, as stated in the announcement, and bids for them must be received at the office of the State Treasurer in Annapolis, Md., before noon on Thursday, August 9. Further particulars will be found in the official advertisement which is over the names of the Governor, the Comptroller and the Treasurer of the State of Maryland.

New England Agents Appointed.

The Bond Company, 84 High St., Boston, Mass., have been appointed representatives for the New England territory by the T. L. Smith Company, of Milwaukee, Wis. They will handle sales of all Smith products—concrete mixers, paving type mixers, excavators and loaders.

New President Chosen.

Williams C. Frye, for seven years president of the Chain Belt Company, Milwaukee, Wis., has it announced, retired from active participation in its affairs and has been succeeded by C. R. Messinger, who was vice president and general manager since 1917. Mr. Frye has been actively associated with the company for twenty-eight years.

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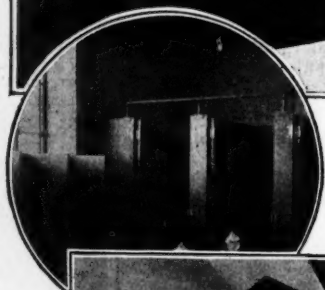
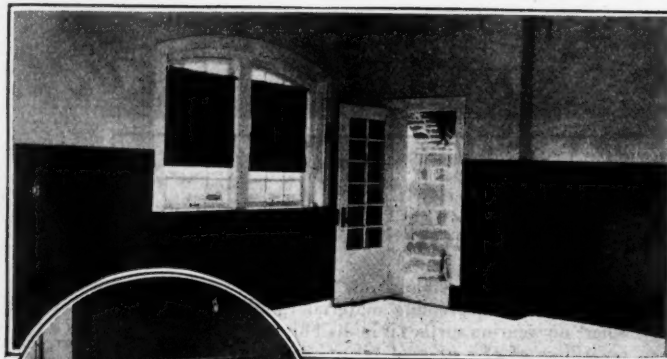
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